

# Turkey



Demographic and  
Health Survey

2003



**Turkey**  
**Demographic and Health Survey**  
**2003**

**Hacettepe University Institute of Population Studies**  
**Ankara, Turkey**

*with the contributions of*

**General Directorate of**  
**Mother and Child Health / Family Planning,**  
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The 2003 Turkey Demographic and Health Survey (TDHS-2003) was carried out by the Hacettepe University Institute of Population Studies in collaboration with the General Directorate of Mother and Child Health and Family Planning of the Ministry of Health.

Initial funding for the TDHS-2003 was provided by the Government of Turkey, as a project in the annual investment program of the State Planning Organization. Further funding was provided by the European Union through the Turkey Reproductive Health Program implemented by the Ministry of Health.

TDHS-2003 is fully comparable with the models and standards developed by the worldwide Demographic and Health Surveys (MEASURE/DHS+) project. Macro International Inc. provided technical assistance on the review and formatting of the final report.

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## FOREWORD

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Hacettepe University Institute of Population Studies was established in 1967 and is the principal institution carrying out nationwide scientific studies on fertility, mortality, migration and maternal and child health issues in Turkey. Through a series of national household surveys conducted every five years, our Institute has collected highly reliable data nationwide on population characteristics and maternal and child health since 1968. These data have allowed the demographic situation in Turkey to be assessed regularly for about a four-decade period. They have been the basis on which population and health policies have been formed, service plans prepared, and the coverage and impact of these plans monitored.

The 2003 Turkey Demographic and Health Survey (TDHS-2003) is the eighth national survey carried out by the Institute of Population Studies. It is a honor for our Institute to win the general approval and confidence of all people and institutions at national and international level with such a program of continuous high quality data production and successful application.

The seven Demographic and Health Surveys between 1968-1998 were financially supported by various international sources. However, for the first time, the TDHS-2003 was financed by the national budget of Republic of Turkey, and further support was provided by the European Union through the reproductive health programme. This is an indicator of institutionalization and the importance of this issue in our country.

Preparatory activities of the TDHS-2003 began in 2002. In the same year, a qualitative research study was conducted involving in-depth interviews with women on contraceptive use, its dynamics and induced abortion. The results of this research were presented in a meeting in April 2003, in which representatives of various organizations interested in these data participated. In the months that followed, activities relating to sampling and questionnaire design continued. Following the completion of the preparatory activities, listing and fieldwork took place between November 2003 and May 2004. The TDHS-2003 was conducted in 80 provinces and 700 places of residence which were selected in such fashion as to represent our country nationally and at the urban-rural and regional levels. Interviews were carried out with 8,075 ever-married women in 10,836 households. In June 2004, the preliminary report that included some key indicators calculated from the TDHS-2003 was published and disseminated to organizations concerned with population and maternal and child health issues.

The results presented in this report show that there have been important changes in various demographic and health indicators in a more positive direction than expected. The fertility data indicate that Turkey is achieving “replacement” fertility. The survey findings also document improvements in infant and child mortality and progress in mother and child health services.



The contributions of university directors, the directors and experts of the public institutions and personnel of our Institute were instrumental in the realization of various stages of the TDHS-2003. I would like to express my gratitude to them for their much appreciated efforts.

First of all, I would like to thank to Kemal Madenođlu, the General Director of the State Planning Organization, and his staff who provided the financial source for the TDHS-2003 through the national budget by putting the survey in the investment program of 2002 for the first time and who continued their supports unstintingly through the survey.

I would like to express my gratitude to the Delegation of the European Union to Turkey and to Simon Mordue, the director of Financial Cooperation, Coordination and Investment, for additional financial source they provided when the financial resource from the national budget was not sufficient for the extended objectives and coverage of the survey. I would like to thank also Figen Tunçkanat for her efforts in designing and executing the project.

The Ministry of Health provided extensive support the TDHS-2003 in every stage as in the previous Demographic and Health Surveys conducted by our Institute. I deeply appreciate first Prof. Dr. Recep Akdađ, the Minister of Health, and especially Dr. Mehmet Rifat Köse, General Director of the Mother and Child Health and Family Planning and his deputy Dr. M. Ali Biliker for their productive, supportive, analytical and enriching contributions. Moreover, I would like to also acknowledge the efforts of other directors and personnel in the General Directorate as well as the health directors and other health personnel in the provinces where the survey was carried out.

I would like to thank Assoc. Prof. Dr. Ömer Demir, the President of the State Institute of Statistics, and Hasibe Dedeş, the director of the Survey, Analysis and Statistics Division, and other staff for their efforts and contributions in selecting the sample with scientific sensitivity.

I am grateful to Ministry of Interior that provided the necessary permissions for field survey as well as province governors who supported the implementation of the survey and other province directors for their contributions.

My special thanks go to Prof. Dr. Tunçalp Özgen, the Rector of Hacettepe University and authorities in the Scientific Research Unit of the University as they shared all the difficulties with us and gave valuable support in every stage of the TDHS-2003.

My thanks are also due to the Steering Committee Members for their valuable contributions. I deeply appreciate all respondents who accepted to be involved in the survey and answered the questionnaires and all the team staff worked in the field, without them we were unable to conduct this survey.

I would like to thank Han Raggars who ensured the data file which is a part of a structure that guarantees the TDHS-2003 be in the context of International Demographic and

Health Surveys, and to Dr. Ann A. Way, the deputy director of the MEASURE DHS Program at ORC Macro and her colleagues for their important efforts in finalization of this report. We also appreciate USAID's willingness to support the MEASURE team's involvement in the report preparation.

Finally, I extend my deepest gratitude to the technical director of the TDHS-2003 Assoc. Prof. Dr. Banu Ergöçmen, the field director Assoc. Prof. Dr. İsmet Koç, and Assoc. Prof. Dr. Attila Hancıoğlu, Assoc. Prof. Dr. Turgay Ünal and Dr. A. Sinan Türkyılmaz who are responsible for sampling, questionnaire design, data entry and data analysis, as well as research assistants and administrative staff for their efforts. Moreover, I present my appreciation and respect to all our family members for their support and indulgence during the laborious times in and out of work days.

Prof. Dr. Sabahat Tezcan  
Director  
Institute of Population Studies  
Hacettepe University

## SUMMARY OF FINDINGS

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The 2003 Turkey Demographic and Health Survey (TDHS-2003) is a nationally representative sample survey designed to provide information on levels and trends on fertility, infant and child mortality, family planning and maternal and child health. Survey results are presented at the national level, by urban and rural residence, and for each of the five regions in the country. The TDHS-2003 sample also allows analyses for some of the survey topics for the 12 geographical regions (NUTS1) which were adopted at the second half of 2002 within the context of Turkey's move to join the European Union.

Funding for the TDHS-2003 was provided initially by the Government of Turkey, as a project in the annual investment program of the State Planning Organization, and further funding was obtained from the European Union through the Turkey Reproductive Health Program implemented by the Ministry of Health.

Hacettepe University Institute of Population Studies (HUIPS) carried out the TDHS-2003 in collaboration with the General Directorate of Mother and Child Health and Family Planning, Ministry of Health. TDHS-2003 is the most recent in the series of demographic surveys carried out in Turkey by HUIPS and it is the third survey conducted as part of the worldwide Demographic and Health Surveys program.

The survey was fielded between December 2003 and May 2004. Interviews were completed with 10,836 households and with 8,075 ever-married women at reproductive ages (15-49). Ever-married women at ages 15-49 who were present in the household on

the night before the interview or who usually live in that household were eligible for the survey.

### **CHARACTERISTICS OF HOUSEHOLD POPULATION**

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Turkey has a young population structure; 29 percent of the population is under age 15. The population age 65 and over accounts for 7 percent of the total population in Turkey. The mean household size in Turkey is 4 persons, varying from an average of 3.9 persons in the urban areas to 4.5 persons in rural areas.

The majority of the population in Turkey has attended school. Among the population with schooling, about one-third of both males and females have completed at least second level primary school. The proportion of population with at least high school education is 23 percent for males and 14 percent for females. However, the indicators for successive cohorts show a substantial increase over time in the educational attainment of both men and women.

### **CHARACTERISTICS OF RESPONDENTS**

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A third of women interviewed in the TDHS-2003 were less than 30 years of age; ninety-five percent were married at the time of interview. A significant proportion of women (17 percent) had completed at least high school. Survey results show considerable improvement in the educational levels of women in reproductive ages. While 42 percent of women had been in employment during the 12 month period

preceding the survey, women's earnings meet almost none or less than half of the expenditures of households for 6 in 10 cases. Independent decision making with regard to the use of earnings show variation according to age, place of residence and level of education of women.

## **FERTILITY BEHAVIOR**

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### **Levels and Trends**

The findings of the TDHS-2003 indicate that if a woman was to maintain the current fertility rates throughout her reproductive years, she would be expected to have 2.2 children on the average by the end of her reproductive years. Women in Turkey experience their prime reproductive years during their twenties with age-specific fertility peaking in the 20-29 age group. Fertility has fallen sharply in Turkey over the past several decades.

### **Socioeconomic and Demographic Differentials**

The urban-rural gap in fertility levels appears to be closing. However, some regional differences remain. Except for South and East Anatolia, fertility is below replacement level. Despite a pronounced decline in fertility in recent decades, period fertility in the East is still well above three children. Fertility decreases rapidly with increasing educational level. Women with no education have on average two more children than that of women who have high school and more education. Another important trend is the steady rise in the age at first birth among women in Turkey. Younger women are much less likely than older women to have given birth to their first child while they were in their teens.

### **Age at Marriage**

In Turkey, marriage is very important from a demographic perspective, because, besides

being prevalent throughout the country, almost all births occur within marriage. Therefore, age at first marriage is a significant demographic indicator since it represents the onset of a woman's exposure to the risk of pregnancy.

The TDHS-2003 results document an increase in the median age at first marriage across age cohorts, from 19.2 years for the 45-49 age group to 21 years for the 25-29 age group. The results also show pronounced differences in the age at first marriage by educational level of women. Among women age 25-49 there is a difference of almost seven years in the timing of entry into marriage between those with no education and those who has at least high school education.

## **FAMILY PLANNING USE**

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### **Family Planning Knowledge**

Knowledge of family planning methods is almost universal among women in Turkey. Almost all women interviewed in the survey had heard of at least one modern method. The IUD and pill are the most widely known modern contraceptive methods among women followed by the male condom, female sterilization and injectables.

### **Levels and Trends**

Ninety percent of both ever-married and currently married women have used a family planning method at some time in their life. Overall, 71 percent of currently married women are using contraception, with 43 percent depending on modern methods and 29 percent using traditional methods. The IUD is the most widely used modern method (20 percent) followed by male condom (11 percent). Withdrawal continues to be the most widely used traditional method. Twenty six percent of currently married women report current use of withdrawal.

### **Differentials in Use**

The use of contraceptive methods varies by age. Current use of any method is the highest among currently married women (81 percent) in the 30-34 age group. The use of withdrawal peaks among women in the 40-44 age group (50 percent) while the highest level of IUD use (26 percent) is found among women age 30-34. Current use of contraceptive methods also varies according to urban rural residence, region, level of education, and number of living children.

### **Discontinuation of Use**

Discontinuation of contraceptive use can highlight program areas that require improvement as well as groups of users who have particular concerns that need to be addressed. The TDHS-2003 results indicate that 40 percent of contraceptive users in Turkey stop using a contraceptive method within 12 months of starting use. The IUD, which is not generally intended as a short-term method, has the lowest discontinuation rate (11 percent). Coitus-related methods are more easily discontinued. For example, 45 percent of condom users discontinue within one year of use. Regarding future use, almost half of currently married non-users intend to use family planning at some time in the future.

### **Provision of Services**

The public sector is the major source of contraceptive methods in Turkey. Fifty-eight percent of current users obtain their contraceptives from the public sector. In the public sector one-third of the users obtain modern contraceptive methods from health centers or MCH/FP centers. Pharmacies are the second most commonly used source, providing contraceptive methods to one-fourth of all users of modern methods.

## **INDUCED ABORTION**

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Overall, 22 percent of pregnancies during the five-year period before the survey terminated in other than a live birth. Induced and spontaneous abortions comprised the greatest share among non-live terminations, with relatively few women having had a stillbirth. There were 21 abortions per 100 pregnancies, of which 11 were induced. The total abortion rate (TAR) per woman is 0.4 for the five years preceding the TDHS-2003. The age-specific rates increase to a peak among women age 30-34, and decline among older women. Women living in the East region and in rural settlements are the least likely to have ever had an induced abortion.

The main reason for obtaining an abortion is to stop childbearing (41 percent). Overall, a substantial proportion of abortions (73 percent) took place in the first month of pregnancy. Private sector providers are preferred for having had an abortion (77 percent). The need for family planning counselling after an abortion is highlighted by the finding that, in the month following an induced abortion, 31 percent of women did not use any method and 26 percent used withdrawal.

## **NEED FOR FAMILY PLANNING**

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### **Fertility Preferences**

Sixty-nine percent of currently married women say they do not want to have more births in the future or are already sterilized for contraceptive purposes. An additional 14 percent of the women want to wait at least two years for another birth. Thus, four out of every five currently married women can be regarded as in need of using family planning services either to avoid or to postpone childbearing. Among the currently married women, the mean ideal number of children is 2.5 for women indicating that most women want small families. Results from



the survey suggest that, if all unwanted births were prevented, the total fertility rate at the national level would be 1.6 children per woman, or 0.7 children less than the actual total fertility rate.

### **Unmet Need for Family Planning**

The total demand for family planning is 76 percent, and 92 percent of this demand is satisfied. The demand for limiting purposes is three times as high as the demand for spacing purposes (58 and 18 percent, respectively). The total unmet need among currently married women is 6 percent, lower than that recorded in the previous two surveys.

## **CHILD MORTALITY**

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### **Levels and Trends**

For the five years preceding the TDHS-2003, the infant mortality rate is estimated at 29 per thousand, the child mortality rate at 9 per thousand, and the under five mortality rate at 37 per thousand. For the same period, results show that the neonatal mortality rate is higher than the postneonatal mortality rate. All the indicators of infant and child mortality have declined rapidly in recent years.

### **Socioeconomic and Demographic Differentials**

The TDHS-2003 findings point out to significant differences in infant and child mortality between regions and by urban-rural residence. They also show that the educational level of mother is an important correlate of infant and child mortality. In addition to the differentials observed between socio-economic groups, infant and child mortality rates also correlate strongly with the young age of the mother at birth, high-birth order and short birth intervals, with children in these categories facing an elevated risk of dying compared to children

in other subgroups. In addition, low weight at birth affects children's chances of survival.

## **MATERNAL HEALTH**

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### **Care during Pregnancy**

Eighty-one percent of mothers received antenatal care during the pregnancy preceding their most recent birth in the five years preceding the survey, with 75 percent receiving care from a doctor. Overall, 71 percent of women made an antenatal care visit before the sixth month of pregnancy, and more than half of the woman made more than four visits. Younger, low parity women, women living in urban areas and in the regions other than the East, and women with at least first primary level education are more likely to have received antenatal care compared to other women.

### **Delivery Care and Postnatal Care**

In Turkey, 78 percent of all births in the five years preceding the survey were delivered at a health facility. Public sector health facilities were used to a much greater extent for delivery (65 percent) than private facilities. The proportion of all births delivered with the assistance of a doctor or trained health personnel is 83 percent.

## **CHILD HEALTH**

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### **Childhood Vaccination Coverage**

Universal immunization of children under one year of age against the six vaccine-preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis, and measles) is one of the most cost-effective programs in reducing infant and child morbidity and mortality. Among children age 12-23 months, 54 percent of them had received all of the recommended eight vaccines. The percentage of children who were fully vaccinated by 12 months of age was 48 percent.

The percentage of children who are fully vaccinated is lowest in the rural areas and in the Eastern region. The vaccination coverage percentages are also related to mother's education and the children's sex and birth order.

### **Prevalence and Treatment of ARI**

Acute respiratory infection (ARI) is the most prevalent disease in Turkey among children under age five during winter months. In the two weeks preceding the survey, 29 percent of children had experienced ARI, and 40 percent had fever. Four in every ten children received some kind of treatment from a health facility or a health provider for these illnesses.

Among all ever-married women age 15-49, 28 percent reported that they smoke regularly or rarely. According to maternity status, 15 percent of pregnant women and 20 percent of breastfeeding women report that they smoke. Smoking more than 10 cigarettes is most common among women age 35-49.

## **NUTRITION INDICATORS FOR CHILDREN AND WOMEN**

### **Breastfeeding and supplemental feeding**

Breastfeeding is almost universal in Turkey; 97 percent of all children are breastfed for some period of time. Complementary feeding is common among very young children. In the first two months of life, only 44 percent are exclusively breastfed. The median duration of breastfeeding for all children is 14 months. Among children who are breastfeeding and younger than six months, 18 percent received infant formula.

### **Iodization of Salt**

Iodine deficiency contributes to higher rates of childhood morbidity and mortality. According to tests conducted during the survey,

the table salt in 30 percent of the households did include neither iodide nor iodate. Iodized salt is not used in about half of rural households. Less than half of the households in Central and Southeast Anatolia use iodized salt.

### **Nutritional Status of Children**

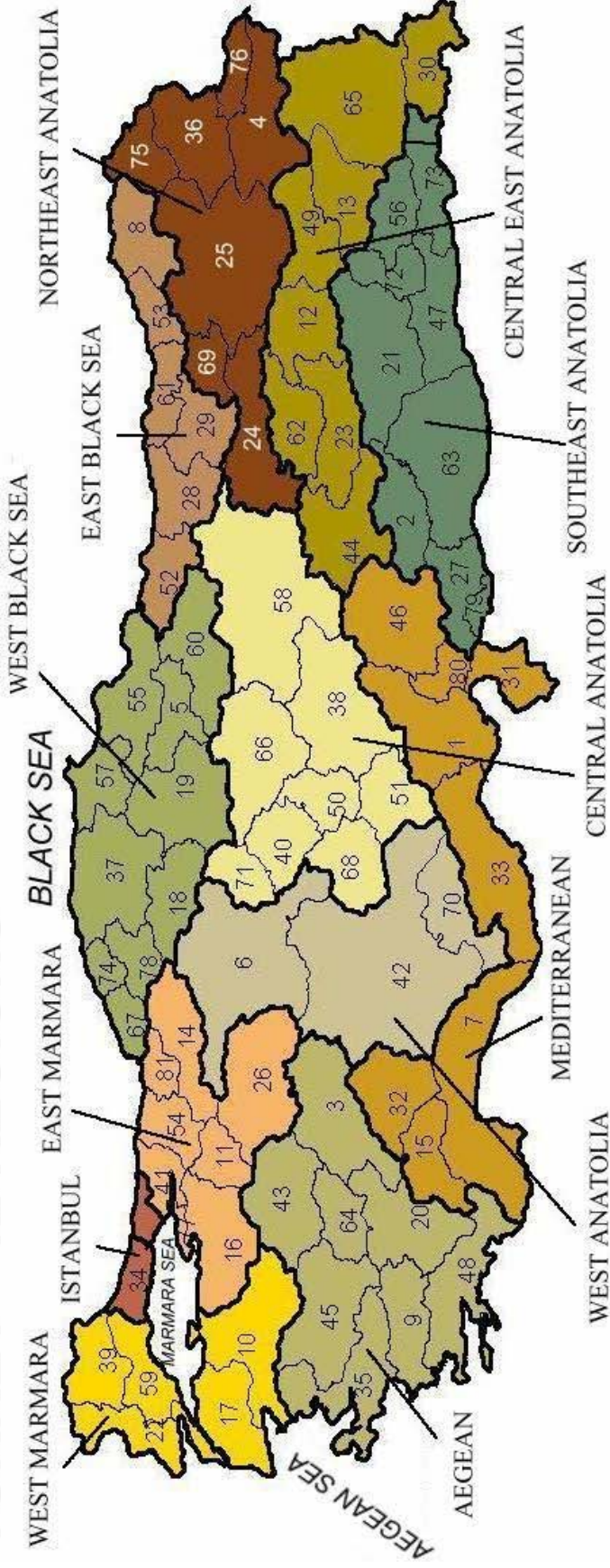
By age five, 12 percent of children are stunted (short for their age), compared to an international reference population. Stunting is more prevalent in rural areas, in the East, among children of mothers with little or no education, among children who are of higher birth order, and among those born less than 24 months after a prior birth. Wasting is a less serious problem. Four percent of children are underweight for their age.

Obesity is a problem among mothers. According to BMI calculations, 57 percent of mothers are overweight, of which 23 percent are obese. BMI increases rapidly with age, exceeding 25.0 for the majority of women age 25 and older.

## **HIV/AIDS KNOWLEDGE AND ATTITUDES**

Awareness of acquired immune deficiency syndrome (AIDS) is high in Turkey. Ninety percent of women reported having heard of AIDS. Despite this widespread awareness, 31 percent of ever-married women do not know any way to avoid AIDS. Educational level is positively related to knowing about ways of avoiding AIDS. The percentage who knows HIV/AIDS is higher among urban ever-married women than among their counterparts living in rural area.

# TURKEY - 12 REGIONS



## MEDITERRANEAN SEA REGIONS AND PROVINCES

- 01 İSTANBUL
- 34 İstanbul
- 02 WEST MARMARA
- 10 Balıkesir
- 17 Çanakkale
- 22 Edirne
- 39 Kırklareli
- 59 Tekirdağ
- 03 AEGEAN
- 03 Aydın
- 09 Aydın
- 20 Denizli
- 35 İzmir
- 43 Kütahya
- 45 Manisa
- 48 Muğla
- 64 Uşak

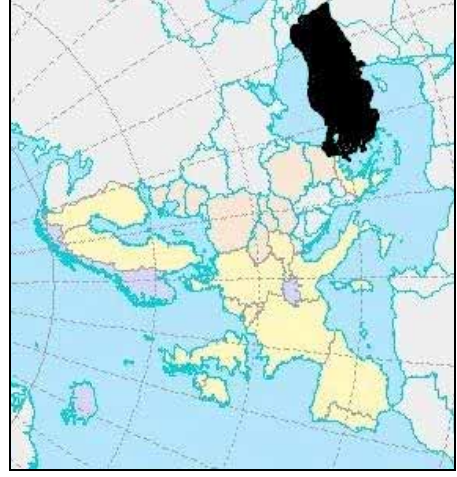
- 04 EAST MARMARA
- 11 Bilecik
- 14 Bolu
- 16 Bursa
- 26 Eskişehir
- 41 Kocaeli
- 54 Sakarya
- 77 Yalova
- 81 Düzce
- 05 WEST ANATOLIA
- 06 Ankara
- 42 Konya
- 70 Karaman

- 06 MEDITERRANEAN
- 01 Adana
- 07 Antalya
- 15 Burdur
- 31 Hatay
- 32 İsparta
- 33 İçel
- 46 K. Maraş
- 80 Osmaniye
- 07 CENTRAL ANATOLIA
- 38 Kayseri
- 40 Kırşehir
- 50 Nevşehir
- 51 Niğde
- 58 Sivas
- 66 Yozgat
- 68 Aksaray
- 71 Kırıkkale

- 08 WEST BLACK SEA
- 05 Amasya
- 18 Çankırı
- 19 Çorum
- 37 Kastamonu
- 55 Samsun
- 57 Sinop
- 60 Tokat
- 67 Zonguldak
- 74 Bartın
- 78 Karabük
- 09 EAST BLACK SEA
- 08 Artvin
- 28 Giresun
- 29 Gümüşhane
- 52 Ordu
- 53 Rize
- 61 Trabzon

- 10 NORTHEAST ANATOLIA
- 04 Ağrı
- 24 Erzurum
- 25 Erzurum
- 36 Kars
- 69 Bayburt
- 75 Ardahan
- 76 Iğdır
- 11 CENTRAL EAST ANATOLIA
- 12 Bingöl
- 13 Bitlis
- 23 Elazığ
- 30 Hakkari
- 44 Malatya
- 49 Muş
- 62 Tunceli
- 65 Van

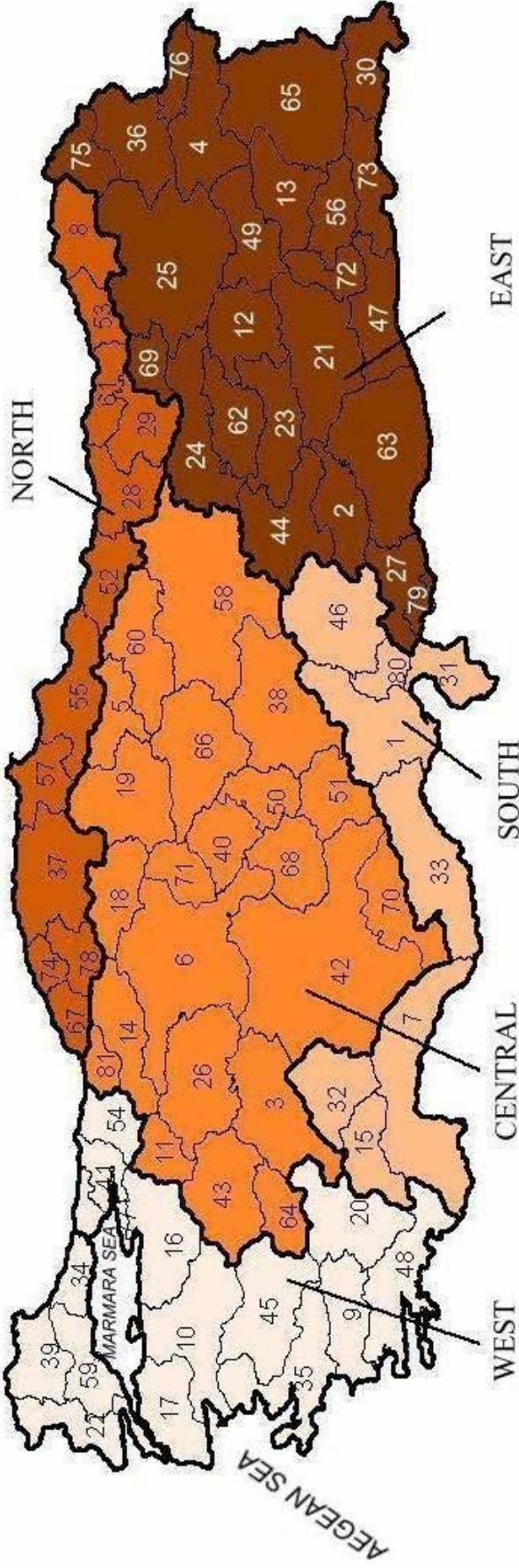
- 12 SOUTHEAST ANATOLIA
- 02 Adıyaman
- 21 Diyarbakır
- 27 Gaziantep
- 47 Mardin
- 56 Siirt
- 63 Şanlıurfa
- 72 Batman
- 73 Şırnak
- 79 Kilis





# TURKEY - 5 REGIONS

BLACK SEA



MEDITERRANEAN SEA

## REGIONS AND PROVINCES

**01 WEST**  
 09 Aydın  
 10 Balıkesir  
 16 Bursa  
 17 Çanakkale  
 20 Denizli  
 22 Edirne  
 34 İstanbul  
 35 İzmir  
 39 Kırklareli  
 41 Kocaeli  
 45 Manisa  
 48 Muğla  
 54 Sakarya  
 59 Tekirdağ  
 77 Yalova

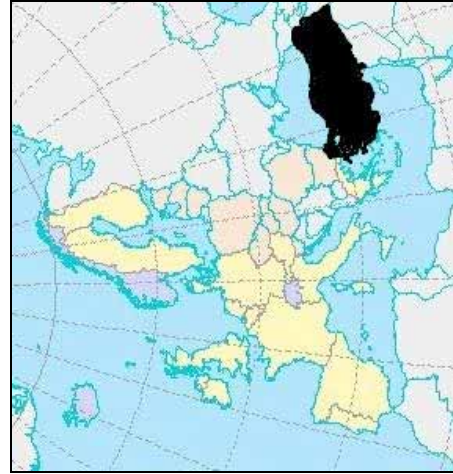
**02 SOUTH**  
 01 Adana  
 07 Antalya  
 15 Burdur  
 31 Hatay  
 32 Isparta  
 33 İçel  
 46 K.Maraş  
 80 Osmaniye

**03 CENTRAL**  
 03 Afyon  
 05 Amasya  
 06 Ankara  
 11 Bilecik  
 14 Bolu  
 18 Çankırı  
 19 Çorum  
 26 Eskişehir  
 30 Kayseri  
 40 Kırşehir  
 42 Konya  
 43 Kütahya  
 50 Nevşehir  
 51 Niğde  
 58 Sivas

60 Tokat  
 64 Uşak  
 66 Yozgat  
 68 Aksaray  
 70 Karaman  
 71 Kırıkkale  
 81 Düzce

**04 NORTH**  
 08 Artvin  
 28 Giresun  
 29 Gümüşhane  
 37 Kastamonu  
 52 Ordu  
 53 Rize  
 55 Samsun  
 57 Sinop  
 61 Trabzon  
 67 Zonguldak  
 74 Bartın  
 78 Karabük

**05 EAST**  
 02 Adıyaman  
 04 Ağrı  
 12 Bingöl  
 13 Bitlis  
 21 Diyarbakır  
 23 Elazığ  
 24 Erzincan  
 25 Erzurum  
 27 Gaziantep  
 30 Hakkari  
 36 Kars  
 44 Malatya  
 47 Mardin  
 49 Muş  
 56 Siirt



# INTRODUCTION

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*Sabahat Tezcan*

## 1.1 Geography

Turkey occupies a surface area of 774,815 square kilometers. About three percent of the total area lies in Southeastern Europe (Thrace) and the remainder in Southwestern Asia (Anatolia or Asia Minor). Turkey has borders with Greece, Bulgaria in the Thrace and Syria, Iraq, Iran, Georgia, Armenia, and Nahcivan (Azerbaijan) in the south and east Anatolia that is also called Asia Minor. The shape of the country resembles a rectangle, stretching in the east-west direction for approximately 1,565 kilometers and in the north-south direction for nearly 650 kilometers. The three sides of Turkey are surrounded by seas: in the north, the Black Sea; in the northwest, the Sea of Marmara; in the west, the Aegean Sea; and in the south, the Mediterranean Sea. The total coastline of Turkey is around 8,333 kilometers.

The Anatolian peninsula lies on an elevated steppe-like and semi-arid central plateau surrounded by mountains on all sides, except the west. The Taurus Mountains in the south and the Northern Anatolia Mountains in the north stretch parallel to the coastline, meeting in the eastern part of the country. The average altitude of the country is around 1,130 meters above sea level. However, there are vast differences in altitude among the regions, ranging from an average of 500 meters in the west to 2,000 meters in the east Anatolia.

The climate is characterized by variations of temperature and rainfall, depending on topography of the country. The average rainfall is 500 millimeters; however, it ranges from 2,000 millimeters in Rize, a province on the Eastern Black Sea coast, to less than 300 millimeters in some parts of Central Anatolia. The typical climatic conditions of Turkey include dry, hot summers and cold, rainy, snowy winters especially in the central and eastern regions. In summer, temperatures do not display large variations across the country, whereas in winter, the temperature ranges from an average of  $-10^{\circ}\text{C}$  in the east to  $+10^{\circ}\text{C}$  in the south.

## 1.2 History

Anatolia was dominated by the Seljuqs for almost two centuries (1055-1243) and afterwards she became the core of the Ottoman Empire, which ruled also in the Europe, Middle East and Africa for almost 6 centuries. At the end of The First World War, the Ottoman Empire demolished and immediately an effort to create a new state from the ruins of an Empire began throughout the country. The Turkish resistance movements were transformed into a complete war of independence when Mustafa Kemal landed at Samsun on 19 May 1919. The Turkish forces achieved success under very difficult conditions. The Lausanne Treaty, signed on 24 July 1923, recognized the creation of a new Turkish State with



virtually the same borders as those of the National Pact of 1920 and guaranteed her complete independence. The Republic was proclaimed on 29 October 1923 in order to give the state a democratic form in the contemporary sense. Subsequently, the country's present borders were established following the annexing of Hatay, a province on the southern border, in 1939.

The founding of the Republic signified radical shifts from the previous social order as a succession of social and economic reforms. The wearing of the turban and fez that were symbols of the former order were banned and the "hat" became the official headgear (25 November 1925); the international hour and calendar systems were adopted (26 November 1925); the dervish lodges and tombs and the titles of tariqahs (sects) were abolished (25 November 1925); a modern Turkish Civil Code was introduced (17 February 1926) to replace the old civil code and the Shariah Laws which were the foundation stones of Ottoman law; the Latin alphabet was adopted instead of Arabic script (1 November 1928). The schools where mostly religion-related instruction was given were closed, and a program of compulsory education was set up which aimed at applying contemporary teaching methods. An amendment made to the Constitution in 1928 removed the clause which had stated that "the religion of the state is Islam". A new clause was put in the Constitution in 1937 stating that Turkey is a secular state. The Surname Law was adopted on 21 June 1934. Mustafa Kemal, the founder of the new Turkish State and Republic, was given the surname of "Atatürk" (Father of the Turks). In short, the direction of change, led by Atatürk, was one away from a religious, oriental Empire to a modern, contemporary and secular Republic.

Turkey did not become involved to the Second World War at the beginning but when the war was about to end, Turkey sided with the USA, Britain and the Soviet Union and declared war against Germany and Japan. However, Turkey did not take part actively in the war. Turkey signed the United Nations communiqué dated 24 January 1945. Turkey, which was officially invited to the San Francisco Conference on 5 March 1945, was among the founding members of the United Nations.

From the foundation of the Turkish Republic to 1950, the country was governed by one party system. In the mid and late 1940s, new political parties formed. The first multiparty election held in 1950, the Democrat Party won, putting the Republican People's Party into the opposition. With the introduction of multi-party period, Turkey achieved a more liberal and democratic environment. Although Turkish political history included three military interventions (1960, 1971, and 1980), Turkey has succeeded in preserving a parliamentary, multi-party democratic system until today, and this makes it unique among other countries where Islam has prominence.

With the foundation of the Republic, Turkey turned her face to the 'Western world', as establishing close relations with European countries and the United States of America. Turkey is a member of the United Nations, the Council of Europe and the North Atlantic Treaty Organization (NATO) and an associate member of the European Community. Since 2000, Turkey has achieved a noteworthy achievement in introducing new social, economic and political reforms within the context of the harmonization process with EU that was initiated with the Helsinki Summit of 1999 (State Planning Organization 2003). Turkey also maintains

close relations with the countries of the Middle East, stemming from deep-rooted cultural and historical links.

### **1.3 Administrative Divisions and Political Organization**

Since the foundation of the Republic, the Turkish administrative structure has been shaped by three Constitutions (1924, 1961, and 1982). These three constitutions proclaimed Turkey to be a Republic with a parliamentary system and specified that the will of the people is vested in the Turkish Grand National Assembly (TGNA). All three constitutions adopted basic individual, social and political rights, and accepted the principle of separation of powers, namely legislative, administrative and judicial.

The legislative body of the Republic is the TGNA. The TGNA is composed of 550 deputies, who are elected for five-year terms. The President of the Republic is elected by the TGNA for a seven-year term. The Prime Minister and other Cabinet Ministers compose the Council of Ministers, the executive branch of the Republic. The judiciary consists of the Court of Appeals, the Court of Jurisdictional Disputes, the Military Court of Appeals, the Constitutional Court, and the civil and military Courts.

Turkey is administratively divided into 81 provinces. These are further subdivided into districts (*ilçe*), subdivisions (*bucak*), and villages (*köy*). The head of the province is the governor, who is appointed by the council of ministers and approved by the president of the republic and responsible to the central government. The governor, as the chief administrative officer in the province, carries out the policies of the central government, supervises the overall administration of the province, coordinates the activities of the various ministry representatives appointed by the central authority in the capital Ankara, and maintains law and order within his/her jurisdiction.

A mayor and a municipal council, elected by the municipal electoral body for a term of five years, administer local government at the municipality level. Every locality with a population of more than 2,000 is entitled to form a municipal administration. Municipalities are expected to provide basic services such as; electricity, water, gas, the building and maintenance of roads, and sewage and garbage disposal facilities within the boundaries of the municipality. Educational and health services are mainly provided by the central government, but municipalities also provide health services for those who are at lower economic and social strata.

### **1.4 Social and Cultural Features**

Turkey varies in social and cultural structure, with ‘modern’ and ‘traditional’ life styles co-existing simultaneously within the society. For the inhabitants of metropolitan areas daily life is similar to the Western countries. On the other hand, people living in outskirts of urban areas and rural settlements are relatively conservative and traditional. Family ties are still strong and influential in the formation of values, attitudes, aspirations, and goals. Although laws are considered to be quite liberal on gender equality, patriarchal ideology characterizes the social life in many ways.

The citizens of Turkey are predominantly Muslim. About 98 percent of the population belongs to Muslim religion, with the Sunnis forming the overwhelming majority. The rich and complex culture of the Turkish society pertains to its ethnic structure. Since the time of Ottoman Empire; Turks predominate ethnically but, in addition, there are Kurdish, Arabic, Circassian, Georgian, Greek, Armenian, and Jewish communities.

One of the most striking achievements since the founding of the Republic has been the increase in both literacy and education. In 1935, only 10 percent of females and 29 percent of males were literate in Turkey. According to the 2000 census figures, the female and male literacy rates for the population age 6 and over were 81 and 94 percent, respectively (State Institute of Statistics 2003). Educational attainment has also increased dramatically. The gross primary education enrolment ratio is 96 percent; 100 percent for males and 93 for females (State Institute of Statistics 2004). Moderate advances have also been made in increasing the proportions of males and females with higher than primary-level education. In 1998, an eight-year education became compulsory in Turkey, with primary school encompassing the first 5 years and junior high school, 3 years. Despite these achievements, considerable regional and urban-rural differences in literacy and educational attainment continue to exist in the country in addition to the gender differences.

## **1.5 Economy**

After the foundation of the Turkish Republic, various economic development strategies were adopted. In the early years of the Republic, the Turkish economy was very weak since a bankrupt country was inherited from the Ottoman Empire. The economy was almost exclusively based on the agriculture, and it was totally undeveloped and poor. The creation and development of industry was clearly the first step that had to be taken to achieve a healthy and balanced economy. Throughout the 1920s liberal policies were implemented; the government promoted the development of industry through private enterprise, encouraged and assisted by favorable legislation and the introduction of credit facilities. These liberal policies continued until 1929, and moderate improvements were realized in the mechanization of agriculture. In the following decade, the state, under the so-called *étatiste* system, assumed the role of entrepreneur, owning and developing large sectors of agriculture, industry, mining, commerce and public works. The origins of modern industrialization in Turkey can be traced to the era of the 1930s. Although the beginnings of the industrialization drive were evident in the immediate aftermath of the formation of the republic in 1923, the real breakthrough occurred in the context of the 1930s.

Although Turkey did not actually participate in the Second World War, the country was faced with heavy restraints on the economy, which slowed down the industrialization process. A "mixed economy" regime followed the war, with the transition to democracy in 1950 signifying a shift towards a more liberal economic order; private enterprise gained recognition side by side with the state economic enterprises. Also, more emphasis was placed on trade liberalization, agricultural and infrastructural development, and the encouragement of foreign capital.

A series of Five-Year Development Plans were prepared beginning in the 1960s. The first of these plans became operative in 1963. A basic objective was to replace the era of unplanned and uncontrolled expansion during the 1950s. Before 1980, Turkey followed an economic policy based on the substitution of imports, and instead of importing it was aimed to manufacture those goods in the country to meet domestic demand. Newly established industrial branches were protected for long periods of time by customs tariffs and other taxes.

In the 1980s, governments followed a strategy of renewing economic growth based on an export-oriented strategy. In this way, substantial economic reforms were prepared and applied beginning in January 1980. Privatization implementations were started in the country in 1984. Following the stagnation of the late 1970s, growth recovered in response to a combination of an increased flow of exports and inputs of foreign capital. The liberal economic strategy followed in the 1980s was not unique to that period. The differences between the liberal and *étatiste* phases are not only the nature of the trade regime and the attitude toward foreign direct investment, but also the mode of state intervention in the economy. Respectable rates of economic growth were achieved during the 1980s; however, in recent years, macro instability has manifested itself once again.

Industrialization during the 1990s has been shaped by three dynamics. First, the state's direct influence on the distribution of the resources was lessened. Second, competition gained importance, with increased emphasis on industrial performance and reconstruction of the industry. Third, general globalization and integration into the European Union gained speed. During the 1990s, privatization also gained importance as a solution to economic problems. An autonomous committee was founded in order to regulate privatization. Some of the state enterprises have been privatized within the frame of this program, and further privatization is expected.

Turkey is nearly self-sufficient country in terms of its agricultural production. Wheat, barley, sugar beets, potatoes, leguminous plants and rice are grown, principally for domestic consumption, and cotton, tobacco, citrus, grapes, fig, hazelnuts, and pistachios are also grown for export. Turkey is not rich in mineral resources. One of the country's main problems is the inadequacy of primary energy resources. Copper, chromium, borax, coal, and bauxite are among the mineral resources in the country. The main industries are textiles, steel, cement, fertilizers, automotive and electrical household goods. Machinery, chemicals and some metals are imported mainly from the OECD countries.

Turkey is a middle-income country at the beginning of 2000s. From 1998 onwards, Turkish authorities have made repeated affords to stabilize the economy. However, inherited economic instabilities; persistently high inflation, the systemic weakness of the financial sector and external shocks such as Russian crisis in 1998 and the earthquakes in 1999, hampered attempts to stabilize the economy. As a result, economic growth during 1997–2001 was very unstable, with periods of overheating and two sharp recessions. The financial crises in 2000 and 2001 contributed to a further deterioration in the public finance situation. Since 2001, key structural reforms have been adopted, that are intended to produce future macroeconomic stabilization within the context of the harmonization process with EU. Despite some recent progress, reducing inflation pressure, increasing export revenues,

reducing unemployment problem and addressing insufficient capital for new investments remain key issues (State Planning Organization 2003; Ministry of Foreign Affairs 2004).

## **1.6 Regional Divisions**

The diverse geographical, climatic, cultural, social, and economic characteristics of different parts of the country are the basis for the conventional regional breakdown within Turkey. Five regions (West, South, Central, North, and East) are distinguished, reflecting, to some extent, differences in socioeconomic development levels and demographic conditions within the country. This regional breakdown is frequently used for sampling and analysis purposes in social surveys.

The West region is the most densely settled, the most industrialized, and the most socio-economically advanced region of the country. The region includes both İstanbul, (until 1923 the capital of the Ottoman Empire), which is Turkey's largest city, and the country's manufacturing, commercial and cultural centre, and İzmir, the country's third largest city. The coastal provinces within the West region form a relatively urbanized, fast-growing area. The Aegean coast is also a major agricultural area, where cotton, and fruits mostly grapes and fig are cultivated on the fertile plains. With dry summers and mild, rainy winters, agricultural yields from the fertile soils are good. Most of the industrial establishments are situated in the West region and the region contributes most of the gross domestic product of the country.

The South includes highly fertile plains and some rapidly growing industrial centers. Adana, Mersin, and Antalya are the new metropolises located in this region. Steep mountains cut off the semitropical coastal plains from the Anatolian highlands to the north. Hot, dry summers and mild, wet winters describe the climatic conditions of the region. Cultivation of cotton, sugar beets and citrus provide high incomes and export earnings; tourism centers in Antalya provide almost one-third of tourism revenue. The South region has witnessed an industrial boom and an inflow of migrants, especially from the East and Southeastern provinces in the recent decades.

The Central region is a dry grazing area and includes Ankara, the capital and second largest city. Industrial production in the region is rising modestly, as minor city centers develop. Industrial production in the region specializes in cereal and related processed foods, furniture and marble. Given the dry, temperate climate, fruit tree cultivation and sheep and cattle raising are also common.

The North region has a fertile coastal strip, but in most places it is only a few kilometers wide; the coastal region is relatively isolated from the inner parts of the region and the rest of the country by mountainous terrain. The region specializes in growing small-scale, labor-intensive crops like hazelnuts, tobacco and tea. The region receives large quantities of rainfall throughout the year. Zonguldak, a western province, has extensive coal mine reserves and is a centre for coal mining and the steel industry. The region has a great deal of tourism potential that has been improving recently.



The East region is considered as the least developed part of the country. Rugged mountainous terrain, short summers, and the severe climate are suited to animal husbandry rather than settled farming. However, with the “Southeast Anatolia Project”, the economy in the Southeast has improved in the recent years. Atatürk Dam was built (1983–1992) and Urfa irrigation channels were constructed and water was provided to arid and semi-arid lands, leading to agricultural development in the Southeast Anatolia. In addition to economic benefits, the project is also expected to reverse the migration flow from the region to the rest of the country. Although the capacity of agriculture has increased, the region is still poor in terms of industrial production.

A substantial number of villages and adjacent arable lands have been abandoned because of terrorist movements in last 20 years especially in East and Southeast Anatolia. In addition to this, large-scale development projects in the frame of Southeast Anatolia Project, natural disasters, or improved settlement policies have also led to significant migration both within and outside of the region in the last two decades. In response to these trends, the government initiated “Return to Villages and Rehabilitation Project” (RVRP) directed at this population. The main purposes of the RVRP, which covers the 14 provinces in the East and Southeast Anatolia, are to settle those who want to return to their villages on or around the lands of their former villages or on other suitable places, establish the necessary social and economic infrastructure, provide sustainable living conditions in these settlements, re-establish and vitalize the interrupted rural life, form a more balanced settlement design in the rural areas, and achieve a more rational distribution of public investments and services (State Planning Organization 2003).

## **1.7 Population**

In 1927, Turkey's population was 13.6 million according to the first national census, which was conducted four years after the establishment of the Republic. Beginning with the 1935 census, subsequent population censuses were undertaken regularly at 5-year intervals until 1990. After 1990, it was decided that population censuses would be carried out in years ending with 0 by a law. The latest, fourteenth, Population Census which was carried out on 22<sup>nd</sup> October 2000, put the population of Turkey at 67.4 million (State Institute of Statistics 2003). Turkey is among the 20 most populous countries of the world, and it is the most populous country of the Middle East and the second populous country of the Europe after Germany. According to projections, her population currently is around 71 million (Population Reference Bureau 2004).

The population of Turkey continuously increased in 1927–2000 period. The annual population growth rate reached its highest value (29 per thousand) in the 1955–1960 period. The latest intercensal estimate of the population growth rate was 18 per thousand for the 1990–2000 period. According to the projections of the State Institute of Statistics (SIS), the population of Turkey is expected to reach 76 million in the year 2010 and 88 million in 2025. The total population is expected to be stabilized around mid 21<sup>st</sup> century between 95 and 98 million (State Institute of Statistics 1995).

Turkey has a young population structure as a result of the high fertility and growth rates of the recent past. One-third of the population is under 15 years of age, whilst the proportion 65+ comprises only 6 percent according to 2000 national census results. However, today's prevailing demographic forces of the population are altering the age structure in new ways. First of all, recent decades have witnessed dramatic declines especially in fertility rates. In the early 1970s, the total fertility rate was around 5 children per woman, whereas the estimates in the late 1990s indicate it has nearly halved to 2.6 children. The crude birth rate was estimated at 22 per thousand in the early 2000s. As a result, the median age of the population, which averaged around 20 years between 1940 and 1960 in Turkey, has increased continuously since 1970, reaching 24 years for male and 25 years for female population in 2000. There have been significant changes in the growth rates by age groups. The growth rates for young age groups have decreased whereas the population of older age groups has increased faster than the average for Turkey. It is expected that increase in the population size of 15–64 and 65+ will continue also in the next years while population size of youth will nearly stabilize (State Institute of Statistics 2003).

There is lack of accurate, complete and continuous information on mortality in Turkey, particularly adult mortality. The information is available mainly for deaths in town and city centers and these data are also incomplete. According to reported causes of deaths, the main causes of death in order of importance are cardio-vascular diseases (46 percent), all malignancies (15 percent) and all accidents (4 percent). In contrast to adult mortality, data on child mortality have been available for a relatively long period from a series of fertility surveys. The infant mortality rate in the late 1950s was around 200 per thousand live births. It declined to about 130 during the mid-1970s and to an estimated 42 during the late 1990s. Likewise, crude death rates have also declined from around 30 per thousand in the 1940s to 7 per thousand in 1990s. The latest estimates put life expectancy in Turkey at 66 years for males and 71 for females (State Institute of Statistics 2004).

Marriage, predominantly civil, is widely practiced in Turkey. Religious marriages also account for a significant proportion of the marriages; however, the main custom is to have a civil as well as a religious ceremony. The universality of marriage in Turkey is observed in the low proportions never married. According to the 2000 Population Census, in the age group 45-49 which marks the end of the reproductive ages, only two percent of females had never married, whereas the corresponding figure for males in the same age group was three percent. Marriages in Turkey are also known to be very stable.

The population of Turkey has undergone an intensive process of urbanization, especially from the 1950s onwards. The share of the population living in cities, which was 25 percent in 1950, climbed to 65 percent in 2000. The rate of urbanization has been approximately 33 per thousand during the 1990-2000 period. The rapid urbanization has inevitably caused problems in the provision of services and the emergence of large areas of squatter housing in unplanned settlements around metropolitan cities. Social problems related to the adaptation to city life and culture also are evident.

Turkey has had a long history of external migration. Throughout the 1960s and 1970s, the migrant flow was mainly directed to Western European countries, principally Germany.

During the 1980s, however, it became more oriented towards the oil-producing countries of the Middle East. In the past two decades, the political turmoil in that region and changes in policies and practices governing the labor force in the European Union have continued to influence emigration patterns. At the same time, due to political conditions in neighboring countries, Turkey has found herself subjected to waves of asylum seekers from the Balkans, Middle East countries, and also from distant Asian and African countries (International Organization for Migration 1996).

## **1.8 Population and Family Planning Policies and Programs**

In Turkey, policies related to population have been formulated since the establishment of the Republic in 1923. During the early years of the Republic, there was a perceived need to increase fertility, since the country had suffered from heavy human losses during the First World War and the War of Independence. The defense needs of the country and the shortage of manpower, as well as high infant and child mortality rates, led Turkey to continue to follow a pronatalist population policy until the late 1950s. A number of laws directly or indirectly encouraging population growth were passed during the period. These laws included monetary awards to women with more than 5 children, tax reduction incentives, prohibitions on the advertisement, import and sale of contraceptives (except for health reasons), and prohibition of abortions on social grounds.

The high population growth rates prevailing in the 1950s which led to increased numbers of illegal abortions and, as a consequence, to high maternal mortality, brought the population debate into the political agenda. High urban population growth and employment problems were also factors contributing to the new antinatalist environment in government circles. The State Planning Organization and the Ministry of Health pioneered the policy change, and the first Population Planning Law was enacted in 1965. The law mandated the Ministry of Health to have responsibility for implementing the new family planning policy. The policy allowed the importation of modern contraceptives methods, provided services at state health institutions free of charge and supported health education for couples. In addition, the State Planning Organization incorporated the notion of population planning in the First Five-Year Development Plan.

In 1983, a more liberal and comprehensive Population Planning Law was passed. The new law legalized abortions (up to the tenth week of pregnancy) and voluntary surgical contraception on social and economical grounds. It also permitted the trained auxiliary health personnel to insert IUDs and included other measures to improve family planning services and mother and child health. The latest Five Year Development Plan of the State Planning Organization states that population policy seeks to reach a population structure which is in harmony with the balanced and sustainable development targets of the society. Thus, the strengthening of qualitative aspects of population including increased education and improved health levels and a reduction in unbalanced development and inequalities among regions are primary objectives of population policy (State Planning Organization 2001).

## **1.9 Health Priorities and Programs**

Mother and child health and family planning services have been given a priority status in the policies of the government in recent decades. These services gained importance due to the large proportion of women of reproductive ages and children in the Turkish population, high infant, child and maternal mortality rates, the demand for family planning services, and the limited prenatal and postnatal care. A number of programs to improve services have been implemented since 1985, with special emphasis on provinces which have been designated as priority development areas as well as on squatter housing districts in metropolitan cities, rural areas, and special risk groups. The initiatives include programs in immunization, early diagnosis and prompt treatment of childhood diarrheal diseases, acute respiratory infections, promotion of breastfeeding and growth monitoring, healthy and balanced nutrition, reproductive health, and antenatal and delivery care, and safe motherhood. IEC (Information, Education, and Communication) programs to promote the mother and child health and family planning activities are also being widely implemented.

## **1.10 Health Care System in Turkey**

The Ministry of Health is officially responsible for designing and implementing health policies and delivering health-care services nationwide. Besides the Ministry of Health, other public sector institutions and non-governmental and private organizations contribute to providing mostly curative health services.

At the central level, the Ministry of Health is responsible for the implementation of curative and preventive health-care services throughout the country, within the principles of primary health care. The responsibility for delivering the services and implementing specific Primary Health Care programs is shared by various General Directorates (Primary Health Care, Mother and Child Health and Family Planning, Health Education) and by various Departments (Departments of Tuberculosis Control, Malaria Control, Cancer Control).

At the provincial level, the health-care system is the responsibility of Health Directorates, under the supervision of the Governor. The provincial Health Director is responsible for delivering all primary health-care services as well as curative services. The present network of Health Centers and Health Houses was formed on the basis of "Legislation for the Socialization of Health Services" so that services and facilities are extended down to the village level. A substantial proportion of villages have health centers or health houses, and sites were located so as to provide easy access to other villages.

The simplest element of the socialized health services is the Health House, which serves a population of 2,500-3,000 and is staffed by a midwife. The Health Center serves a population of 5,000-10,000 and is staffed by a team consisting of a physician(s), a nurse(s), a health officer, midwives, an environmental health technician, medical secretary and a driver. Health Centers mainly offer integrated, polyvalent primary health-care services. Mother and Child Health and Family Planning Centers and Tuberculosis Dispensaries also offer primary preventive health services.

This network of health facilities is responsible for delivering primary health care services, maternal and child health, family planning, and public health education services. These health facilities are also the main sources of the health information system.

## **1.11 Objectives and Organization of the Survey**

### **1.11.1 Objectives**

The 2003 Turkish Demographic and Health Survey (TDHS–2003) is the latest in a series of national-level population and health surveys that have been conducted by the Hacettepe University Institute of Population Studies (HUIPS), in the last four decades. The primary objective of the TDHS-2003 is to provide data on socioeconomic characteristics of households and women, fertility, mortality, marriage patterns, family planning, maternal and child health, nutritional status of women and children, and reproductive health. The survey obtained detailed information on these issues from a sample of ever-married women in the reproductive ages (15-49). The TDHS-2003 was designed to produce information in the field of demography and health that to a large extent can not be obtained from other sources.

Specifically, the objectives of the TDHS-2003 included:

- Collecting data at the national level that allows the calculation of demographic rates, particularly fertility and childhood mortality rates;
- Obtaining information on direct and indirect factors that determine levels and trends in fertility and childhood mortality;
- Measuring the level of contraceptive knowledge and practice by method, region, and urban-rural residence;
- Collecting data relative to mother and child health, including immunizations, prevalence and treatment of acute respiratory tract infections among children under five, antenatal care, assistance at delivery, and breastfeeding;
- Measuring the nutritional status of children under five and of their mothers; and
- Collecting data at the national level on elderly welfare, knowledge of sexually transmitted diseases (STDs) and AIDS, and usage of iodide salt.

The TDHS-2003 information is intended to contribute data to assist policy makers and administrators to evaluate existing programs and to design new strategies for improving demographic, social and health policies in Turkey. Another important purpose of the TDHS-2003 is to sustain the flow of information for the interested organizations in Turkey and abroad on the Turkish population structure in the absence of reliable and sufficient vital registration system.

### 1.11.2 Administration and Funding of the Survey

The TDHS-2003 was implemented by HUIPS, in collaboration with the General Directorate of Mother and Child Health and Family Planning of the Ministry of Health. HUIPS began preparations to carry out the survey as far back as 2001, and the fieldwork of the survey was conducted between December 2003 and May 2004.

Financial support for the TDHS-2003 was mainly provided through the national budget as a three-year advanced project in the investment program of the State Planning Organization. In this respect, the TDHS-2003 is significantly different from the previous demographic and health surveys carried out by the Institute which were all conducted through international sources of funding. Moreover, the TDHS-2003 was supported for the first time as a project in the frame of the European Union “Turkey Reproductive Health Program”, implemented by the General Directorate of Mother and Child Health and Family Planning of the Ministry of Health.

A steering committee consisting of the academic staff of HUIPS and representatives of the General Directorate of Mother and Child Health and Family Planning of the Ministry of Health, the State Planning Organization and the State Institute of Statistics participated in all phases of the project.

The persons involved in the various activities of the TDHS–2003 are listed in Appendix A.

### 1.11.3 Questionnaires

Two main types of questionnaires were used in the TDHS-2003: the Household Questionnaire and the Individual Questionnaire for ever-married women of reproductive ages. The contents of the questionnaires were based on the International MEASURE/DHS+ survey project model questionnaires and on the questionnaires that had been employed in previous Turkish population and health surveys. In developing the questionnaire, close attention was paid to obtaining the data needed for program planning in Turkey as specified during consultations with population and health agencies. Additionally input was obtained from other institutions studying on demographic and health issues. Ensuring the comparability of the TDHS–2003 findings with previous demographic surveys, particularly with TDHS–1993 and TDHS–1998, was an important goal during questionnaire development. A pretest of questionnaire was conducted in July 2003 and based on the pretest results, some minor modifications were made to the questionnaires.

The Household Questionnaire was used to enumerate all members of and visitors<sup>1</sup> to the selected households and to collect information relating to the socio-economic level of the households. In the first part of the household questionnaire, basic information was collected on the age, sex, educational attainment, marital status, working status and relationship to the head of household of each person listed as a household member or visitor. The objective of the first

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<sup>1</sup> Persons who were not usual household members but who were present in that household on the night before the interview were identified as “visitors” and included in the household roster in order to obtain *de facto* survey population.

part of the Household Questionnaire was to obtain basic socio-economic information for Turkish households as well as to identify women who were eligible for the Individual Questionnaire. Some additional information on never-married women in 15–49 ages listed in the household schedule was provided at the end of this part. The second part of the household questionnaire was devoted to collecting data on welfare of the elderly, if any, in the households. In this part, there are questions on the income, health insurance and physical capabilities (i.e. ability to carry on daily activities for all persons age 60 and over living in the household. In the third part, questions were included on the dwelling unit and on the ownership of a variety of consumer goods. Also in this part, İstanbul Metropolitan Household Module was included which covers questions about tenure, and the availability of electricity, piped-water, and natural gas in the households located in the urban places of İstanbul metropolitan area. In the final part of the Household Questionnaire questions were included about the storage of the salt used for cooking at home. Salt-related questions were asked in the half of the sampled clusters, and salt iodization tests were applied in the interviewed households in these clusters.

The Individual Questionnaire covered the following information:

- Background characteristics
- Reproductive history
- Marriage
- Knowledge and use of contraceptive methods
- Other information relating to contraception
- Abortions and causes
- Maternal health care and breastfeeding
- Immunization and acute respiratory infections
- Fertility preferences
- Husband's background characteristics
- Women's work and status
- Knowledge of sexually transmitted diseases and AIDS
- Maternal and child anthropometry

The calendar module in the Individual Questionnaire was used to record on a monthly basis fertility, contraceptive use and marriage events for six and a half years beginning from January 1998 up to the survey month.

English versions of the two questionnaires can be seen in Appendix E.

#### **1.11.4 Sample**

The sample design and sample size of the TDHS-2003 makes it possible to perform analyses for Turkey as a whole, for urban and rural areas and for the five demographic regions of the country (West, South, Central, North and East). The TDHS-2003 sample is of sufficiently size to allow for analysis on some of the survey topics at the level of the 12 geographical

regions (NUTS 1) which were adopted at the second half of the year 2002 within the context of Turkey's move to join the European Union. Among these 12 regions, İstanbul and the Southeastern Anatolian Project regions (GAP in Turkish initials), due to their special situations were oversampled. Most results in this report are presented for five demographic regions as used in the previous surveys and for İstanbul and GAP region<sup>2</sup>. In addition for a number of indicators results are presented in detail for the 12 geographical regions, whenever the numbers of observations are sufficient (see Appendix B for detailed information).

In the selection of the TDHS-2003 sample, a weighted, multi-stage, stratified cluster sampling approach was used. The distribution of the target sample of the survey was based on the results of the 2000 General Population Census. Sample selection for the TDHS-2003 was undertaken in three stages. The sampling units at the first stage were settlements. The frame for the selection of primary sampling units was prepared using the results of the 2000 General Population Census. In the sampling frame, settlements were divided into two groups; one including those settlements with populations more than 10,000 as "urban", and the other, including settlements less than 10,000 as "rural". In the survey design, the selection of the settlements in each cluster was done with probability proportional to their population size. For the second stage of sample selection, structure schedule data that was collected in the year 2000 for settlements with a municipality and updated in 2002 by the State Institute of Statistics was used.

Using the updated household lists, a fixed number of households were selected in each cluster by systematic random sampling method (25 in clusters located in settlements over 10,000, 15 in those less than 10,000, and 12 in the İstanbul metropolitan clusters). All ever-married women at ages 15-49 who generally live in the selected households and/or were present in the household on the night before the interview were eligible for the Individual Questionnaire.

A more technical and detailed description of the TDHS-2003 sample design, selection and implementation is presented in Appendix B.

### **1.11.5 Fieldwork and Data Processing**

The TDHS-2003 data collection was carried out by 14 teams<sup>3</sup>. Each team was consisted of 3-5 female interviewers, one male measurer, one field editor and a team supervisor. The Institute's academic staff had visited teams in the field as regional coordinators during the survey.

A three-week training course was given to the field staff in November 2003. The main fieldwork began in the first week of December 2003 and completed in the middle of May 2004. The fieldwork was planned to take into consideration the seasonal conditions in Turkey.

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<sup>2</sup> İstanbul province and Southeast Anatolia (GAP) region constitute the two regions of NUTS 1 geographical regions.

<sup>3</sup> The fieldwork of the TDHS-2003 was started with 14 teams in December 2003. In order to finalize the fieldwork in the remaining provinces, 19 new teams were formed gradually among the teams that completed their work and returned.



Therefore, in the first months the fieldwork was concentrated in the provinces located in the West, the South and the Central Anatolia regions where winter conditions would have a minimum affect on the survey. The North and the Eastern Anatolia provinces were included to the fieldwork later as weather conditions improved. The fieldwork was finalized without any interruptions in the planned period.

The completed questionnaires in the field were returned to the Institute of Population Studies in Ankara for data processing. The office editing staff checked all questionnaires returned from the field. Those questions which had not been pre-coded and questions with open-ended answers were coded by the office team. After this, the data entry and editing were done using microcomputers and CPro (Census and Survey Processing System) software. During data entry process, full verification was reached by entering each questionnaire to the computers twice by different data editors. The office editing and data processing activities began in January 2004 (three weeks after the beginning of the fieldwork) and were completed at the end of May 2004.

The results of the household and individual questionnaires are summarized in Table 1.1. Information is provided on the overall coverage of the sample, including household and individual response rates. In all, 13,049 households were selected for the TDHS-2003. At the time of listing phase of the survey, 11,659 households were considered occupied and, thus, available for interview. Of the 11,659 occupied households, 93 percent (10,836 households) were successfully interviewed. The main reasons the field teams were unable to interview some households were because some dwelling units that had been listed were found to be vacant at the time of the interview or the household was away for an extended period.

Table 1.1 Results of the household and individual interviews			
Number of households, number of interviews, and response rates by urban-rural residence, Turkey 2003			
Result	Urban	Rural	Total
<b>Household interviews</b>			
Dwellings sampled	9,754	3,295	13,049
Households found	8,718	2,941	11,659
Households interviewed	7,956	2,880	10,836
<b>Household response rate</b>	91.3	97.9	92.9
<b>Individual interviews</b>			
Eligible women	6,259	2,188	8,447
Eligible women interviewed	5,976	2,099	8,075
<b>Eligible women response rate</b>	95.5	95.9	95.6

In the interviewed 10,836 households, 8,447 women were identified as eligible for the individual interview, i.e. they were ever-married, in reproductive ages (15-49) and present in the household on the night before the interview. Interviews were successfully completed with 8,075 of these women (95.6 percent). Among the eligible women not interviewed in the survey, the principal reason for non-response was the failure to find the women at home after repeated visits to the household.

A more complete description of the fieldwork, coverage of the sample, and data processing is presented in Appendix B.

*İsmet Koç and Attila Hancioğlu*

The objective of this chapter is to provide a demographic and socioeconomic profile of the TDHS-2003 sample and a descriptive assessment of the environment in which women and children live. This is accomplished by examining the general characteristics of the households in the sample. Information is presented on the age, sex, and education of the household population, as well as on housing facilities and household possessions. The profile of the TDHS-2003 households provided in this chapter will help in understanding the results presented in the following chapters. In addition, it may provide useful input for social and economic development planning.

## **2.1 Characteristics of the Household Population**

The questionnaire for the TDHS-2003 included two questions distinguishing between the *de jure* population (persons who usually live in selected household) and the *de facto* population (persons who spent the night before the interview in the household). The differences between these populations are small. However, since past surveys and censuses were based on *de facto* populations, and since the sampling probabilities were based on *de facto* population information, tabulations for the household data presented in this chapter are based on the *de facto* definition, unless otherwise stated. A household was defined as a person or group of persons living together and sharing a common source of food.

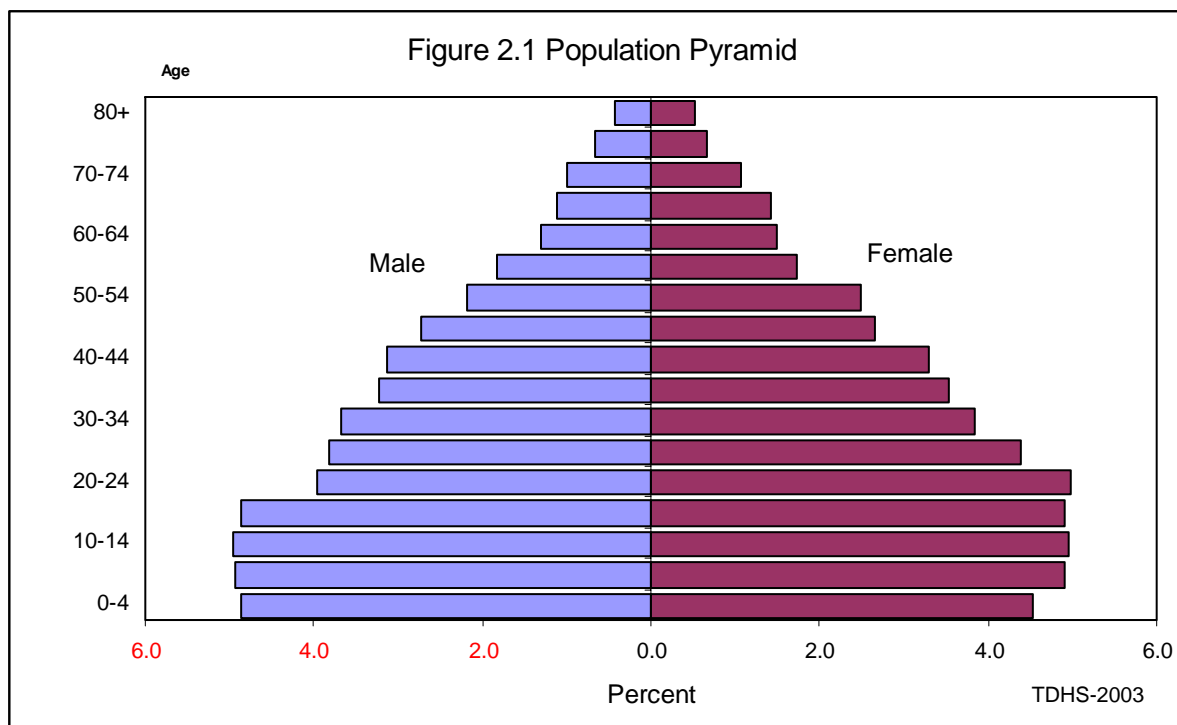
### **2.1.1 Age and Sex Composition**

Table 2.1 presents the percent distribution of the *de facto* population by age, according to urban-rural residence and sex. The table shows the effects of past demographic trends on the structure of the Turkish population and indicates the context in which a variety of demographic processes are operating. The total *de facto* population in the selected households was 42,851 persons. In general, the survey results show that females outnumber males in Turkey (51 and 49 percent respectively). The proportion of females is slightly higher in rural areas (52 and 48 percent). The information on sex and age distribution is used to construct a population pyramid describing the TDHS-2003 household population (Figure 2.1). The pyramid has a wide base, with a large concentration (29 percent) of the population under 15 years of age. This pattern is typical of countries that have experienced relatively high fertility in the recent past. The effect of recent fertility declines is evident in the fact that the proportions of children under age 5 and age 5 to 9 are smaller than the proportion age 10 to 14. The proportion under age 15 is greater in the rural population than in the urban population (Table 2.1). The differences in the urban-rural age distributions reflect the lower recent fertility in urban areas compared with rural areas.

Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Turkey 2003

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	9.8	8.5	9.1	10.4	9.5	9.9	10.0	8.8	9.4
5-9	9.7	9.4	9.5	11.1	9.9	10.5	10.1	9.5	9.8
10-14	9.6	9.5	9.6	11.4	9.9	10.6	10.2	9.7	9.9
15-19	10.4	9.3	9.8	9.0	10.1	9.6	10.0	9.6	9.8
20-24	8.6	9.9	9.3	7.1	9.3	8.3	8.1	9.7	8.9
25-29	8.6	9.5	9.0	6.2	6.5	6.4	7.8	8.5	8.2
30-34	8.2	7.9	8.0	6.1	6.7	6.4	7.5	7.5	7.5
35-39	7.0	7.1	7.0	5.8	6.4	6.1	6.6	6.9	6.7
40-44	6.6	6.8	6.7	5.9	5.5	5.7	6.4	6.4	6.4
45-49	5.8	5.4	5.6	5.1	4.7	4.9	5.6	5.2	5.4
50-54	4.5	4.9	4.7	4.4	4.8	4.6	4.5	4.9	4.7
55-59	3.5	3.1	3.3	4.3	4.0	4.2	3.8	3.4	3.6
60-64	2.3	2.6	2.5	3.5	3.4	3.5	2.7	2.9	2.8
65-69	1.9	2.4	2.2	3.2	3.4	3.3	2.3	2.8	2.5
70-74	1.7	1.7	1.7	2.8	2.8	2.8	2.0	2.1	2.1
75-79	1.0	1.1	1.0	2.1	1.8	1.9	1.4	1.3	1.3
80 +	0.6	0.9	0.8	1.5	1.2	1.3	0.9	1.0	1.0
Don't know/missing	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	14,314	14,894	29,208	6,528	7,116	13,644	20,842	22,010	42,851



The population age 65 and over accounts for 7 percent of the total population in Turkey. The share of elderly population is approximately 6 percent in urban areas, as opposed to over 9 percent in the rural areas. The percentage of elderly has risen to the highest proportion in the demographic history of Turkey. This may mainly be attributable to two factors: the rapid decline in fertility and increased life expectancy at all ages.

Table 2.2 presents a comparison of the distribution of the household population by broad age groups for the last three demographic surveys and the last two censuses carried out in 1990 and 2003. The dependency ratio, defined as the ratio of the non-productive population (persons under age 15 and age 65 and over) to the population age 15-64, is calculated based on these figures. The dependency ratio, which was above 65 at the time of the 1990 Population Census, had declined to 56 at the time of the TDHS-2003. The decline reflects a significant decrease in the burden placed on persons in the productive ages to support older and younger household members. Table 2.2 also indicates that the median age of household population is 24.7 years, 2.5 years higher than the median age in 1990. Both changes in dependency ratio and in the median age of population are consistent with the gradual aging of the population that occurs as fertility declines.

Age group	CP 1990	TDHS-1993	TDHS-1998	CP 2000	TDHS-2003
Less than 15	35.0	33.0	31.5	29.8	29.1
15-64	60.7	61.4	62.6	64.5	64.0
65 and +	4.3	5.5	5.9	5.7	6.9
Total	100.0	100.0	100.0	100.0	100.0
Median age	22.2	23.1	24.3	24.8	24.7
Dependency ratio	64.7	62.7	59.7	55.1	56.3

Sources: 1990 and 2000 Census of Population (CP), TDHS-1993, TDHS-1998 and TDHS-2003

### 2.1.2 Household Composition

Table 2.3 presents the distribution of households in the TDHS-2003 sample by sex of the head of the household and by the number of household members. These characteristics are important because they are often associated with socioeconomic differences between households. For example, female-headed households frequently are poorer than households headed by males. In addition, the size and composition of the household affects the allocation of financial and other resources among household members, which in turn influences the overall well-being of these individuals. Household size is also associated with crowding in the dwelling, which can lead to unfavorable health conditions. Unlike earlier tables, Table 2.3 is based on de jure members, i.e. usual residents. The household head is female in 13 percent of households. Although there is little variation in the proportion of female-headed households by residence, female-headed households are more common in urban areas (13 percent) than in rural areas (11 percent).

There are on average 4 persons per household. More than four in ten households have fewer than four members, while another quarter of the households have five members, and

one-third of households has six or more members. In general, rural households are larger than urban households. For example, less than five percent of urban households have eight or more members, compared with 11 percent of rural households. Household size varies from an average of 3.9 persons in the urban areas to 4.5 persons in rural areas.

Characteristic	Urban	Rural	Total
<b>Sex of head of household</b>			
Male	87.0	88.6	87.5
Female	13.0	11.4	12.5
Total	100.0	100.0	100.0
<b>Number of usual members</b>			
0	0.3	0.4	0.3
1	6.3	6.3	6.3
2	16.5	17.3	16.8
3	21.8	13.7	19.4
4	26.3	19.3	24.2
5	14.5	15.0	14.7
6	6.8	10.6	7.9
7	3.4	6.1	4.2
8	1.9	3.8	2.4
9+	2.2	7.5	3.8
Total	100.0	100.0	100.0
Number of households	7,643	3,193	10,836
Mean size	3.9	4.5	4.1

Note: The table is based on *de jure* members, i.e., usual residents.

## 2.2 Fosterhood and Orphanhood

Foster children are children under 18 years of age who are not living with either of their biological parents. Orphaned children are children under 18 years of age who have lost one or both of their biological parents. To measure the prevalence of child fostering and orphanhood, four questions were asked in the Household Questionnaire on the survival and residence of the parents of children under 18 years of age.

Information on children's living arrangements and orphanhood is presented in Table 2.4. In Turkey, 92 percent of children under age 18 live with both parents. The proportion of children living with both parents decreases with increasing age. Children living in the North are somewhat less likely to live with both parents than children in other regions.

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent					Total	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Missing		
<b>Age</b>												
<2	98.5	1.0	0.2	0.1	0.1	0.2	0.0	0.0	0.0	0.0	100.0	1,457
2-4	95.8	2.0	0.5	0.4	0.1	0.7	0.1	0.1	0.0	0.3	100.0	2,509
5-9	94.6	2.1	1.4	0.5	0.3	0.8	0.2	0.0	0.1	0.1	100.0	4,199
10-14	91.1	2.5	3.2	0.5	0.8	1.5	0.1	0.0	0.1	0.0	100.0	4,326
15-17	83.1	3.3	4.7	0.9	1.7	5.4	0.2	0.4	0.2	0.2	100.0	2,717
<b>Sex</b>												
Male	92.4	2.4	2.2	0.5	0.7	1.4	0.1	0.1	0.1	0.1	100.0	7,729
Female	91.8	2.3	2.3	0.5	0.6	2.1	0.2	0.1	0.1	0.1	100.0	7,478
<b>Residence</b>												
Urban	91.8	2.5	2.0	0.7	0.5	2.0	0.1	0.1	0.1	0.1	100.0	9,976
Rural	92.6	1.9	2.6	0.1	0.8	1.3	0.2	0.2	0.1	0.1	100.0	5,231
<b>Region</b>												
West	92.2	2.5	1.6	0.6	0.5	2.1	0.1	0.0	0.1	0.2	100.0	4,926
South	91.5	3.1	1.8	0.6	0.8	1.9	0.1	0.0	0.1	0.1	100.0	2,102
Central	91.8	2.9	2.4	0.5	0.4	1.6	0.1	0.0	0.2	0.1	100.0	3,066
North	90.5	1.8	2.1	0.5	1.1	3.1	0.5	0.2	0.1	0.1	100.0	1,076
East	93.0	1.4	3.1	0.3	0.8	1.0	0.1	0.3	0.1	0.0	100.0	4,038
<b>NUTS 1 Region</b>												
İstanbul	92.2	2.0	1.7	0.5	0.4	2.7	0.1	0.0	0.1	0.2	100.0	2,285
West Marmara	90.3	2.5	1.8	1.0	0.6	2.5	0.2	0.2	0.3	0.6	100.0	472
Aegean	91.7	3.2	2.0	0.7	0.4	1.7	0.0	0.0	0.0	0.3	100.0	1,607
East Marmara	93.5	2.2	1.8	0.6	0.8	0.9	0.2	0.0	0.0	0.0	100.0	1,071
West Anatolia	92.6	2.9	1.7	0.6	0.5	1.5	0.1	0.0	0.2	0.0	100.0	1,344
Mediterranean	91.5	3.1	1.8	0.6	0.8	1.9	0.1	0.0	0.1	0.1	100.0	2,102
Central Anatolia	90.8	3.3	3.1	0.4	0.7	1.4	0.1	0.1	0.2	0.0	100.0	854
West Black Sea	90.4	3.5	1.7	0.5	0.3	3.3	0.1	0.1	0.0	0.1	100.0	874
East Black Sea	91.3	0.7	2.3	0.4	1.6	2.4	0.9	0.2	0.2	0.0	100.0	560
Northeast Anatolia	91.9	2.2	4.2	0.3	0.3	0.8	0.0	0.3	0.0	0.0	100.0	689
Central East Anatolia	93.5	0.8	3.1	0.1	0.8	1.0	0.2	0.5	0.0	0.0	100.0	1,128
Southeast Anatolia	93.0	1.4	2.8	0.4	0.9	1.1	0.1	0.1	0.1	0.1	100.0	2,221
Total	92.1	2.3	2.2	0.5	0.6	1.8	0.1	0.1	0.1	0.1	100.0	15,207

Six percent of children live with only one parent—5 percent with their mothers and 1 percent with their fathers. Three percent of children live with only one parent because the other parent is dead. Foster children—children not living with either parent—account for only 2 percent of children under 18, and orphaned children—children who have lost one or both parents—account for 3 percent. The proportion of orphaned children at age 15-17 is approximately 7 percent.

### 2.3 Education of the Household Population

The educational level of household members is among the most important characteristics of the household because it is associated with many phenomena including reproductive behavior, use of contraception, and the health of children. Results from

household interviews can be used to look at both educational attainment among household members and school attendance among children and young adults.

### **2.3.1 Educational Attainment of Household Members**

Primary education in Turkey starts at age 6 and continues for 8 years. Eight years of education is considered as basic education and has been compulsory since 1997. High school, which includes another three years of schooling, is not compulsory.

Tables 2.5.1 and 2.5.2 present data on the educational level of the household population age 6 and over for males and females, respectively. The results confirm that there is a gap in educational attainment between males and females. Overall, about 77 percent of males in the TDHS-2003 households have completed at least first level primary school, compared with 61 percent of females. However, among the population with any schooling, over one-third of males as well as females have completed at least second level primary school. The median number of years of schooling for men is 4.8 which is about 0.5 year higher than the median level for women (4.3 years).

An examination of the changes in educational indicators over successive cohorts indicates that there have been substantial increases over time in the educational attainment of both men and women. For example, the median number of years of schooling is 9 years for males age 20-24 years, compared with 4.9 years in the 40-44 age group. Women have experienced substantial improvements in education as well. As a result, the differentials in educational attainment between males and females have narrowed among younger cohorts.

Urban residents are more likely to have attended school and to have remained in school for a longer period than rural residents. Gender differences in educational attainment are also less evident in rural than in urban areas. The median number of years of schooling is 4.5 years among rural men, compared with 4.0 years among rural women. The difference is much bigger in urban areas, where the median years of schooling are 5.4 and 4.5, respectively for men and women.

Gender differences in the likelihood of attending school are greatest in the East, and least in the West. In the East, 85 percent of men have ever attended school, compared with about 61 percent of women. In the West, the gap is much smaller, with nearly 85 percent of women having had some education, compared with 95 percent of men.



**Table 2.5.1 Educational attainment of household population: Males**

Percent distribution of the de facto male household population age six and over by highest level of education attended or completed, according to background characteristics, Turkey 2003

Background characteristic	No education/ Primary incomplete	First level primary	Second level primary	High school and higher	Missing	Total	Number of males	Median number of years
<b>Age</b>								
6-9	99.3	0.2	0.0	0.0	0.5	100.0	1,706	0.4
10-14	36.6	53.4	9.9	0.1	0.0	100.0	2,119	4.7
15-19	5.0	19.0	55.0	21.0	0.1	100.0	2,078	8.0
20-24	3.6	33.0	15.7	47.6	0.2	100.0	1,696	9.1
25-29	4.0	41.1	11.7	42.8	0.4	100.0	1,636	7.5
30-34	4.6	46.9	12.9	35.3	0.3	100.0	1,572	6.4
35-39	6.5	48.1	15.5	29.5	0.5	100.0	1,379	5.4
40-44	6.3	53.8	11.2	28.0	0.6	100.0	1,338	4.9
45-49	8.6	53.5	9.4	28.1	0.5	100.0	1,166	4.8
50-54	12.9	55.4	7.2	23.8	0.7	100.0	931	4.7
55-59	21.1	53.6	9.5	14.9	0.9	100.0	785	4.6
60-64	32.5	45.9	5.3	15.2	1.2	100.0	557	4.4
65+	53.5	34.9	3.0	6.7	1.9	100.0	1,369	2.5
<b>Residence</b>								
Urban	19.8	36.3	15.4	28.1	0.4	100.0	12,638	5.4
Rural	30.5	45.6	13.2	10.1	0.7	100.0	5,713	4.5
<b>Region</b>								
West	18.8	42.3	13.9	24.5	0.4	100.0	7,221	4.9
South	24.6	40.2	15.5	19.0	0.8	100.0	2,376	4.8
Central	19.2	38.3	16.0	26.1	0.4	100.0	4,021	5.0
North	22.9	38.9	16.3	21.2	0.7	100.0	1,409	4.8
East	36.5	32.7	13.6	16.5	0.6	100.0	3,324	4.5
<b>NUTS 1 Region</b>								
İstanbul	17.6	40.1	15.1	26.6	0.6	100.0	3,244	5.1
West Marmara	20.0	45.5	13.9	19.8	0.9	100.0	752	4.8
Aegean	21.2	45.0	12.5	21.2	0.1	100.0	2,423	4.8
East Marmara	17.2	40.2	15.4	27.2	0.0	100.0	1,619	5.2
West Anatolia	17.3	36.4	15.4	30.7	0.2	100.0	1,696	5.7
Mediterranean	24.6	40.2	15.5	19.0	0.8	100.0	2,376	4.8
Central Anatolia	20.3	38.8	15.6	24.3	1.0	100.0	1,031	4.9
West Black Sea	22.7	40.6	16.5	19.5	0.6	100.0	1,173	4.8
East Black Sea	23.9	37.0	16.4	22.0	0.8	100.0	714	4.8
Northeast Anatolia	29.3	33.7	15.9	20.4	0.7	100.0	607	4.7
Central East Anatolia	35.7	30.6	13.5	19.6	0.6	100.0	962	4.6
Southeast Anatolia	39.4	33.6	12.9	13.5	0.5	100.0	1,755	4.4
Total	23.2	39.2	14.7	22.5	0.5	100.0	18,351	4.8

Table 2.5.2 Educational attainment of household population: Females

Percent distribution of the de facto female household population age six and over by highest level of education attended or completed, according to background characteristics, Turkey 2003

Background characteristic	No education/ Primary incomplete	First level primary	Second level primary	High school and higher	Missing	Total	Number of females	Median number of years
<b>Age</b>								
6-9	99.6	0.1	0.0	0.0	0.3	100.0	1,691	0.4
10-14	38.5	51.5	9.9	0.0	0.1	100.0	2,126	4.6
15-19	14.9	28.7	41.6	14.8	0.0	100.0	2,103	7.4
20-24	12.3	43.5	9.7	34.5	0.0	100.0	2,137	4.9
25-29	13.2	48.3	7.4	31.1	0.0	100.0	1,876	4.8
30-34	18.0	55.0	7.3	19.7	0.0	100.0	1,647	4.6
35-39	22.6	54.4	6.4	16.5	0.1	100.0	1,508	4.5
40-44	30.0	48.9	5.1	15.9	0.1	100.0	1,408	4.4
45-49	33.9	49.3	4.7	12.1	0.0	100.0	1,135	4.3
50-54	54.5	32.3	3.3	9.6	0.3	100.0	1,070	2.5
55-59	66.2	24.9	2.3	6.0	0.6	100.0	743	0.0
60-64	68.3	23.5	1.9	5.3	0.9	100.0	636	0.0
65+	82.6	12.7	1.5	2.4	0.0	100.0	1,576	0.0
<b>Residence</b>								
Urban	33.8	36.4	10.8	18.8	0.2	100.0	13,368	4.5
Rural	48.8	40.1	6.6	4.4	0.2	100.0	6,293	4.0
<b>Region</b>								
West	31.5	40.7	10.0	17.6	0.2	100.0	7,520	4.5
South	40.9	35.9	10.1	12.8	0.3	100.0	2,601	4.3
Central	31.8	42.0	10.9	15.3	0.0	100.0	4,431	4.5
North	38.2	38.5	9.8	13.1	0.3	100.0	1,531	4.3
East	60.2	26.6	6.1	6.9	0.2	100.0	3,579	1.8
<b>NUTS 1 Region</b>								
Istanbul	30.5	39.4	10.5	19.2	0.4	100.0	3,295	4.6
West Marmara	30.8	46.3	9.2	13.5	0.2	100.0	822	4.5
Aegean	32.1	42.7	9.1	16.1	0.0	100.0	2,610	4.5
East Marmara	32.4	41.1	10.9	15.4	0.2	100.0	1,652	4.5
West Anatolia	27.7	39.6	12.3	20.4	0.1	100.0	1,881	4.6
Mediterranean	40.9	35.9	10.1	12.8	0.3	100.0	2,601	4.3
Central Anatolia	38.1	40.3	9.5	12.1	0.0	100.0	1,157	4.3
West Black Sea	34.4	44.3	9.2	11.9	0.3	100.0	1,308	4.4
East Black Sea	43.1	32.2	10.6	13.9	0.2	100.0	756	4.2
Northeast Anatolia	52.4	30.7	7.5	9.2	0.2	100.0	667	3.2
Central East Anatolia	59.8	25.5	5.8	8.7	0.2	100.0	1,044	1.6
Southeast Anatolia	63.2	25.8	5.7	5.1	0.2	100.0	1,868	1.3
Total	38.6	37.6	9.5	14.2	0.2	100.0	19,661	4.3

### 2.3.2 School Attendance Ratios

The TDHS-2003 collected information on current school attendance for the population age 6-24 years. Figure 2.2 presents the percentage of the population in this age range that was attending school at the time of the survey. The comparatively low age-specific attendance rate for children age 6 reflects that some of these children had not had their sixth birthday at the time the school year started and thus were not eligible to attend school. Overall, the majority of children of both sexes age 15 and under were attending school. However, Figure 2.2 shows that school attendance rates are generally higher among boys than among girls. The gender gap in school attendance increases somewhat with age, particularly among the post-first level primary ages (i.e., 11-24 years).

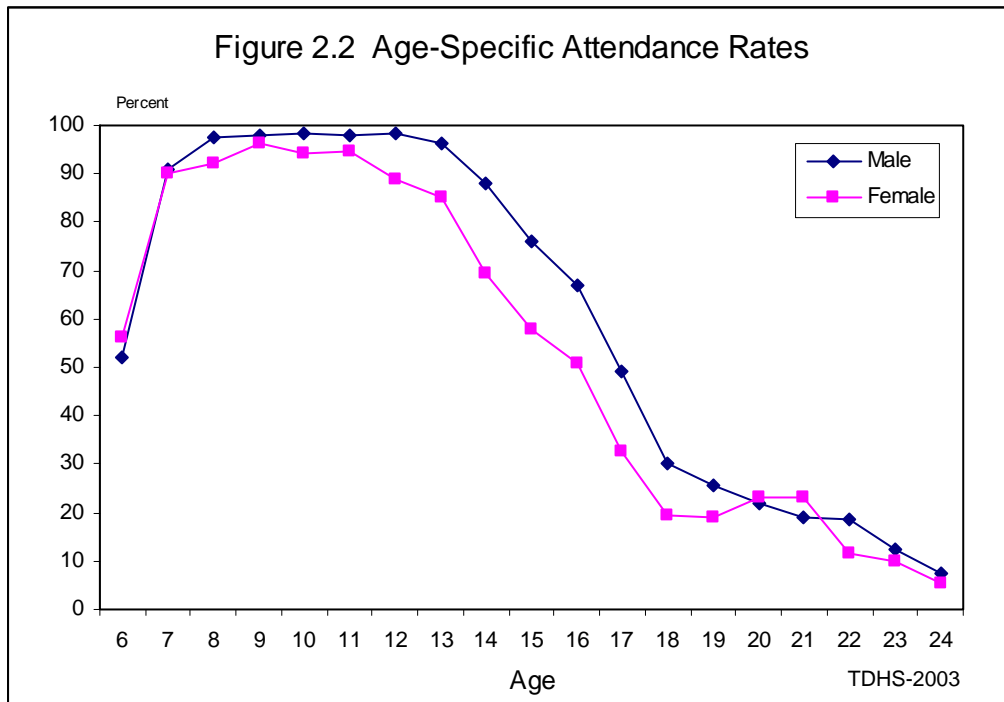


Table 2.6 provides net attendance ratios (NAR) and gross attendance ratios (GAR) by residence and region according to sex and school level. The NAR for primary school is the percentage of the primary school-age (6-13 years) population that is attending primary school. The NAR for high school is the percentage of the high school age (14-16 years) population that is attending high school. By definition, the NAR cannot exceed 100 percent. The GAR for primary school is the total number of primary school students of any age, expressed as the percentage of the official primary school age population. The GAR for high school is the total number of high school students up to age 24, expressed as the percentage of the official high school age population. If there are significant numbers of over-age and under-age students at a given level of schooling, the GAR can exceed 100 percent. Children are considered to be attending school currently if they attended at any point during the current school year.

Table 2.6 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de jure household population by level of schooling and sex, according to background characteristics, Turkey 2003

Background characteristic	Net attendance ratio			Gross attendance ratio			Gender Parity Index
	Male	Female	Total	Male	Female	Total	
<b>PRIMARY SCHOOL</b>							
<b>Residence</b>							
Urban	91.5	89.2	90.3	100.4	94.3	97.3	0.94
Rural	88.8	82.8	85.9	100.4	88.0	94.5	0.88
<b>Region</b>							
West	93.9	93.5	93.7	102.8	98.0	100.3	0.95
South	91.7	90.0	90.8	99.3	94.8	97.1	0.95
Central	91.2	90.7	91.0	99.8	96.6	98.1	0.97
North	93.3	90.4	91.9	101.5	96.6	99.1	0.95
East	84.8	73.0	79.1	98.4	78.5	88.8	0.80
<b>NUTS 1 Region</b>							
İstanbul	94.6	92.3	93.4	102.3	96.9	99.4	0.95
West Marmara	94.7	91.7	93.1	103.7	95.2	99.2	0.92
Aegean	92.2	95.6	93.8	102.7	101.6	102.2	0.99
East Marmara	95.1	88.9	92.0	105.3	94.0	99.6	0.89
West Anatolia	91.2	91.2	91.2	100.3	94.4	97.2	0.94
Mediterranean	91.7	90.0	90.8	99.3	94.8	97.1	0.95
Central Anatolia	92.4	94.8	93.6	100.0	100.0	100.0	1.00
West Black Sea	90.6	92.0	91.3	98.5	102.1	100.3	1.04
East Black Sea	92.0	88.2	90.2	98.2	91.6	95.0	0.93
Northeast Anatolia	88.1	78.9	83.6	97.0	86.5	91.9	0.89
Central East Anatolia	81.6	73.3	77.6	101.4	79.1	90.6	0.78
Southeast Anatolia	85.4	70.9	78.5	97.3	75.7	87.0	0.78
Total	90.6	87.0	88.8	100.4	92.2	96.3	0.92
<b>HIGH SCHOOL</b>							
<b>Residence</b>							
Urban	60.9	57.1	59.0	89.9	76.6	83.4	0.85
Rural	38.3	28.1	33.3	62.6	37.9	50.4	0.61
<b>Region</b>							
West	56.7	56.2	56.5	83.8	76.4	80.4	0.91
South	56.2	47.0	51.5	85.5	63.8	74.4	0.75
Central	61.2	59.4	60.3	86.9	76.7	81.6	0.88
North	61.6	53.7	57.9	95.2	75.1	85.7	0.79
East	36.6	22.8	29.7	62.5	31.0	46.8	0.50
<b>NUTS 1 Region</b>							
İstanbul	58.6	57.4	58.1	86.7	73.7	80.5	0.85
West Marmara	60.9	60.5	60.7	86.7	85.8	86.3	0.99
Aegean	44.3	48.9	46.6	66.4	66.2	66.3	1.00
East Marmara	59.3	56.5	58.1	91.4	85.0	88.5	0.93
West Anatolia	70.5	69.8	70.1	91.8	85.0	88.2	0.93
Mediterranean	56.2	47.0	51.5	85.5	63.8	74.4	0.75
Central Anatolia	56.6	57.0	56.8	81.3	75.5	78.4	0.93
West Black Sea	63.1	46.0	54.1	100.2	62.7	80.5	0.63
East Black Sea	68.3	67.6	68.0	104.1	102.1	103.2	0.98
Northeast Anatolia	49.5	32.4	41.1	79.9	44.0	62.3	0.55
Central East Anatolia	35.6	23.0	29.3	66.1	31.0	48.6	0.47
Southeast Anatolia	32.8	19.5	26.1	54.3	26.6	40.4	0.49
Total	53.0	46.9	50.0	80.4	63.0	71.8	0.78

Table 2.6 shows that 89 percent of primary school age children in Turkey are attending primary school. The NAR is higher in urban areas than in rural areas (90 and 86 percent, respectively), as is the GAR (97 and 95 percent, respectively). There is significant variation between the East and other regions: the NAR in the East is 79 percent while it is over 90 percent in all other regions. At the high school level, the NAR is 50 percent and the GAR is 72 percent. Regional disparities at the high school level are even more pronounced than at the primary school level: the NAR, for example, ranges from a low of 26 percent in Southeast Anatolia, to a high of 70 percent in West Anatolia.

The Gender Parity Index (GPI) represents the ratio of the GAR for females to the GAR for males. It is presented for both the primary and high school levels and offers a summary measure of the extent to which there are gender differences in attendance rates. A GPI of less than 1 indicates that a smaller proportion of females than males attend school. The GPI for primary school is 0.92 and for high school is 0.78. Although there is little urban-rural differential at the primary school level, there is significant difference at the high school level. Once again, regional differentials are significant; the data indicate that girls residing in the eastern part of Turkey are particularly disadvantaged. Gender disparities by age in school attendance at any level are also shown in Figure 2.2.

### **2.3.3 Repetition and Dropout Rates**

The repetition rate is the percentage of students in a given grade the previous school year who are repeating that grade in the current school year. The dropout rate is the percentage of students who were enrolled in school in the previous school year but were not attending school during the current school year. By asking about the grade that children were attending during the previous school year, it is possible to calculate dropout rates and repetition rates. Repetition and dropout rates approach zero where students nearly always progress to the next grade at the end of the school year. Repetition and dropout rates often vary across grades, indicating points in the school system where students are not regularly promoted to the next grade or they decide to drop out of school.

Although an automatic promotion policy does not operate officially in Turkey, very few primary school students repeat grades. Table 2.7.1 indicates that apart from first grade, at which 3 percent are repeating, the rates for grades 2 to 8 are all below 2 percent.

Table 2.7.1 Grade repetition rates								
Repetition rates for the de jure household population age 6-24 years by school grade, according to background characteristics, Turkey 2003								
Background characteristic	School grade							
	1	2	3	4	5	6	7	8
<b>Sex</b>								
Male	3.4	2.1	1.4	1.1	1.2	0.7	2.3	2.1
Female	2.7	1.4	0.1	1.6	0.5	1.5	0.5	0.6
<b>Residence</b>								
Urban	3.0	1.9	0.6	1.6	1.0	0.8	1.5	1.3
Rural	3.1	1.4	1.2	0.8	0.6	1.3	1.4	1.8
<b>Region</b>								
West	3.4	2.1	0.6	0.8	0.3	0.0	0.9	2.2
South	4.2	1.7	2.0	2.8	3.4	1.7	1.5	0.5
Central	0.0	2.3	0.0	1.8	0.0	2.2	3.3	1.3
North	0.0	3.6	0.0	1.1	1.5	1.5	0.6	2.2
East	4.8	0.5	1.3	1.1	0.8	0.8	0.4	0.8
<b>NUTS 1 Region</b>								
İstanbul	0.0	4.4	1.2	1.6	0.8	0.0	2.2	1.4
West Marmara	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
Aegean	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East Marmara	5.0	2.0	0.0	0.8	0.0	0.0	1.3	6.9
West Anatolia	0.0	0.0	0.0	2.2	0.0	2.1	2.1	0.0
Mediterranean	4.2	1.7	2.0	2.8	3.4	1.7	1.5	0.5
Central Anatolia	0.0	0.0	0.0	1.9	0.0	1.9	6.7	0.0
West Black Sea	0.0	8.0	0.0	1.3	1.1	3.8	1.3	5.1
East Black Sea	0.0	0.0	0.0	0.0	1.4	0.0	1.3	0.0
Northeast Anatolia	5.5	0.0	3.7	0.0	0.0	0.0	0.0	0.0
Central East Anatolia	3.0	0.0	0.0	0.0	1.4	1.7	0.0	0.0
Southeast Anatolia	5.2	0.8	1.1	2.0	0.7	0.6	0.8	1.8
Total	3.1	1.8	0.8	1.4	0.9	1.0	1.4	1.5

As Table 2.7.2 indicates, dropout rates are also low (2 percent or less) from grades 1 through 7. At the eighth grade, the dropout rate increases to 20 percent. The reason for the high dropout rate at grade 8 is probably because many of the students who complete the 8-year compulsory primary school do not or are unable to move to the next educational level (i.e., high school). There is variation in the rates by residence. For example, rural children are more than two times as likely as urban children to drop out of school at grade 8. Differentials in the dropout rate by region are small. However, at grade 8, significant differentials exist in dropout rates by NUTS 1 regions.

**Table 2.7.2 Dropout rates**  
Dropout rates for the de jure household population age 6-24 years by school grade, according to background characteristics, Turkey 2003

Background characteristic	School grade							
	1	2	3	4	5	6	7	8
<b>Sex</b>								
Male	0.0	0.3	0.0	0.2	1.7	1.0	0.0	19.1
Female	0.4	0.5	0.8	1.9	2.6	1.3	0.0	21.3
<b>Residence</b>								
Urban	0.0	0.7	0.2	1.0	1.8	0.9	0.0	14.8
Rural	0.6	0.0	0.8	1.2	2.8	1.7	0.0	32.0
<b>Region</b>								
West	0.0	1.1	0.0	1.5	1.5	0.0	0.0	17.8
South	0.0	0.0	0.0	0.9	0.5	2.1	0.0	20.7
Central	0.0	0.0	0.0	0.0	2.0	0.0	0.0	19.9
North	1.7	0.0	2.8	2.2	0.0	1.6	0.0	21.5
East	0.3	0.3	0.8	1.0	4.9	3.1	0.0	22.9
<b>NUTS 1 Region</b>								
İstanbul	0.0	2.2	0.0	0.8	1.2	0.0	0.0	13.6
West Marmara	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.1
Aegean	0.0	0.0	0.0	0.0	2.4	0.0	0.0	31.6
East Marmara	0.0	0.0	0.0	6.5	2.6	0.0	0.0	13.5
West Anatolia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2
Mediterranean	0.0	0.0	0.0	0.9	0.5	2.1	0.0	20.7
Central Anatolia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8
West Black Sea	0.0	0.0	3.7	0.0	3.5	0.0	0.0	21.9
East Black Sea	2.5	0.0	0.0	4.4	0.0	3.2	0.0	12.1
Northeast Anatolia	0.0	0.0	0.8	0.9	3.3	5.3	0.0	24.8
Central East Anatolia	0.0	0.0	1.3	1.2	2.7	5.1	0.0	18.2
Southeast Anatolia	0.5	0.4	0.5	1.0	7.0	1.3	0.0	25.4
Total	0.2	0.4	0.4	1.0	2.1	1.1	0.0	20.0

## 2.4 Housing Characteristics

The TDHS-2003 gathered information on housing characteristics such as sources of drinking water and time to the nearest water source, type of toilet facilities, main material of the floor, and the number of sleeping rooms in the house. These characteristics are highly correlated with health and are also indicative of socioeconomic status. Table 2.8 presents this information by urban–rural residence.

Table 2.8 Housing characteristics

Percent distribution of households by housing characteristics, according to urban-rural residence, Turkey 2003

Housing characteristic	Urban	Rural	Total
<b>Source of drinking water</b>			
Piped water in house/garden	64.1	16.5	50.1
Public piped water outside house/garden	0.5	0.1	0.4
Public well	0.6	1.8	0.9
Well in house/garden	0.7	6.4	2.4
Piped surface water in house/garden	2.5	60.6	19.6
Spring/public fountain	4.5	10.9	6.4
River/stream/pond/lake/dam	0.0	0.2	0.1
Rainwater	0.0	0.1	0.0
Tanker truck	0.3	0.2	0.3
Bottled water	26.4	2.8	19.5
Water station	0.2	0.1	0.2
Other	0.1	0.2	0.1
Missing	0.1	0.0	0.0
Total	100.0	100.0	100.0
<b>Time to water source</b>			
Percentage <15 minutes	96.1	93.0	95.2
<b>Sanitation facility</b>			
Flush toilet	92.7	35.7	75.9
Open pit	1.8	22.9	8.0
Closed pit	5.0	38.5	14.8
No facility, bush/field/public toilet	0.2	1.1	0.5
Other	0.3	1.8	0.7
Missing	0.1	0.0	0.1
Total	100.0	100.0	100.0
<b>Flooring material</b>			
Earth	0.8	12.0	4.1
Wood planks	10.8	27.1	15.6
Parquet/polished wood	22.1	4.9	17.1
Karo	10.4	4.5	8.6
Cement	22.5	42.0	28.3
Carpet	8.6	4.0	7.2
Marley	21.1	3.3	15.8
Mosaic	2.8	1.0	2.3
Other	0.9	1.0	0.9
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
<b>Persons per sleeping room</b>			
1-2	77.5	64.9	73.8
3-4	18.5	25.4	20.5
5-6	2.8	6.8	4.0
7+	0.5	2.1	1.0
Don't know/missing	0.7	0.8	0.7
Total	100.0	100.0	100.0
Mean number of persons per sleeping room	2.2	2.6	2.3
Number of households	7,643	3,193	10,836



Overall, about half of the households get their drinking water from pipes, mainly within their dwelling. The source for drinking water differs considerably by residence. Among urban households, 64 percent get drinking water from pipes in their residence, and less than 1 percent obtains water from a public tap. The second most common source of drinking water in urban areas is bottled water (26 percent), while 5 percent obtain drinking water from a spring/public fountain. Around two-thirds of rural households report having piped water; however, for nearly half of these households, the source for the piped water is a river, stream or other surface water. More than one in ten rural households obtains water from a spring. Households in rural Turkey are somewhat more likely to be relying on well water than households in urban Turkey (8 percent and 1 percent respectively).

Households with no access to drinking water within their own premises were also asked about the time required to fetch water. Overall, 95 percent of households have access to water within 15 minutes. As expected, there is better access to water in urban areas than in rural areas.

The lack of availability of sanitary facilities poses a serious health problem. Two-thirds of households have modern sanitation facilities in Turkey. Modern sanitation facilities are much more common in urban areas (93 percent) than in rural areas (36 percent). Twenty-three percent of households have a traditional pit toilet or improved pit toilet (7 percent in urban areas, and 61 percent in rural areas).

With regard to flooring, more than a quarter of the TDHS-2003 households live in dwellings with cement floors, and 17 percent in dwellings with a polished wood floor. Another 16 percent have wood planks as flooring material in their dwelling. There are substantial differences in the flooring materials in urban and rural dwellings. Among rural households, 42 percent have a cement floor, compared with about 23 percent of urban households. Wood and marley are also common as a flooring material in urban households: about a half of urban households live in dwellings with wood or marley floors. Twelve percent of households in rural areas have earth floors, compared to less than 1 percent of households in urban areas.

Information on the number of rooms that a household uses for sleeping was collected to determine the extent of crowding. Table 2.8 shows that approximately 74 percent of households have one or two persons per sleeping room, and 21 percent have three to four persons per sleeping room. On average, there are 2.3 persons per sleeping room in Turkey. Rural households have more people per sleeping room than urban households (2.6 and 2.2 persons per sleeping room, respectively).

## **2.5 Household Durable Goods**

The availability of durable consumer goods is a good indicator of household socio-economic level. Moreover, particular goods have specific benefits. For example, having access to a television exposes household members to innovative ideas, and a refrigerator prolongs the wholesomeness of foods. Table 2.9 presents the availability of selected consumer goods by residence.

Table 2.9 Household durable goods			
Percentage of households possessing various durable consumer goods, by urban-rural residence, Turkey 2003			
Durable consumer goods	Urban	Rural	Total
Refrigerator	96.4	89.5	94.3
Gas or electric oven	78.9	53.0	71.3
Washing machine	86.5	58.8	78.3
Iron	91.3	70.2	85.1
Vacuum cleaner	85.1	52.9	75.6
Television	96.8	89.8	94.7
Telephone	81.5	75.2	79.6
Cellular phone	74.2	50.4	67.2
None of the above	0.4	2.6	1.0
Microwave oven	9.1	2.7	7.2
Dishwasher	28.9	5.7	22.1
Blender/mixer	47.2	19.9	39.2
DVD/VCD player	38.8	14.6	31.7
Video camera	4.4	1.3	3.5
Digiturk/CINE 5/satellite antenna	12.0	19.6	14.3
Air conditioner	6.1	1.4	4.7
Video	8.9	3.4	7.3
Cable TV	8.6	0.4	6.2
Camera	40.3	18.5	33.9
CD player	22.7	7.6	18.2
Computer	15.4	2.6	11.6
Internet	8.4	1.2	6.3
Car	28.1	20.3	25.8
Taxi/minibus/commercial vehicles	4.7	6.6	5.3
Tractor	1.7	19.6	7.0
Motorcycle	3.3	7.6	4.5
Bicycle	20.9	15.3	19.3
Number of households	7,643	3,193	10,836

Most of the population in Turkey enjoys the convenience of electrical appliances. Television sets and refrigerators are present in more than nine in ten households, while almost eight in ten households have a telephone. More than seven in ten households own an oven, a vacuum cleaner or a washing machine. Ownership of various durable goods varies by place of residence, with higher proportions of ownership for all items reported among households in urban areas as compared to rural areas.

## WOMEN'S CHARACTERISTICS AND STATUS

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The purpose of this chapter is to provide a description of the situation of women in Turkey. This information is useful for understanding the context of reproduction and health and as indicators of the status of women and women's empowerment. Distributions of interviewed women by various demographic and socioeconomic characteristics are shown in the tables that follow. The main background characteristics that will be used in subsequent chapters, such as age at the time of interview, region, urban-rural residence and education are examined. In addition, information is provided on women's employment and work status.

### 3.1 Background Characteristics

A description of the basic characteristics of women interviewed in the TDHS-2003 is provided in Table 3.1. The table includes distributions of ever-married women interviewed in the survey, by age, marital status, urban-rural residence, region of residence, and education.

Women were asked two questions in the individual interview to assess their age: "In what month and year were you born?" and "How old are you?" Interviewers were trained to probe in situations in which respondents knew neither their age nor date of birth; as a last resort, interviewers were instructed to record their best estimate of the respondent's age. The data on age indicate that a third of women interviewed are less than 30 years of age. The lower proportions in the first two age groups, 15-19 and 20-24 are a result of the ever-married sample; significant proportions of women have not married by these ages. The decline at the upper end of the age categories, on the other hand, is a result of high fertility in the past; the figures imply that successively larger cohorts of women entered the reproductive age groups during the recent decades.

Ninety-five percent of women were married at the time of interview, while the rest were either divorced/separated (3 percent) or widowed (2 percent). These figures indicate the rarity of marital dissolution in Turkey.

Seventy-one percent of ever-married women live in urban areas. In regard to regional distribution, 4 in every 10 women live in the West, while only 7 percent of ever-married women in the country reside in the North region. With regard to NUTS 1 regions, almost a fifth of ever-married women are in İstanbul, followed by 14 percent in the Aegean and 13 percent in the Mediterranean region.

**Table 3.1 Background characteristics of respondents**  
Percent distribution of women by background characteristics, Turkey 2003

Background characteristic	Weighted percent	Number of women	
		Weighted	Unweighted
<b>Age</b>			
15-19	2.9	238	240
20-24	12.9	1,045	1,080
25-29	18.3	1,480	1,516
30-34	18.4	1,489	1,506
35-39	17.6	1,420	1,410
40-44	16.5	1,330	1,297
45-49	13.3	1,073	1,026
<b>Marital status</b>			
Married	95.0	7,672	7,686
Divorced/separated	2.9	237	208
Widowed	2.1	166	181
<b>Residence</b>			
Urban	71.2	5,752	5,976
Rural	28.8	2,323	2,099
<b>Region</b>			
West	40.7	3,286	2,331
South	12.7	1,028	1,113
Central	23.1	1,867	1,484
North	7.3	590	901
East	16.2	1,305	2,246
<b>NUTS 1 Region</b>			
Istanbul	18.2	1,470	1,163
West Marmara	4.3	348	384
Aegean	14.3	1,157	549
East Marmara	8.8	710	556
West Anatolia	9.7	784	466
Mediterranean	12.7	1,028	1,113
Central Anatolia	5.8	471	502
West Black Sea	6.3	513	615
East Black Sea	3.6	291	481
Northeast Anatolia	3.0	245	535
Central East Anatolia	4.8	389	566
Southeast Anatolia	8.3	671	1,145
<b>Education</b>			
No education/Prim. incom.	21.8	1,761	2,032
First level primary	53.7	4,339	4,120
Second level primary	7.4	601	585
High school and higher	17.0	1,374	1,338
Total	100.0	8,075	8,075

The distribution of women by levels of education is striking, and provides clues as to the recent significant changes in reproductive and health behavior in Turkey. While one in every five women has no education or has not completed first level primary school, a significant proportion (17 percent) has completed at least high school. Comparing these figures with the TDHS-1993 results, one finds that women in reproductive age groups today are far more educated than 10 years ago. The proportion of women who have completed at least second level primary school increased from 15 percent in 1993 to 24 percent in 2003, a

relative increase of about 60 percent. On the other hand, the proportion of women who have not completed first level primary school declined from 34 percent to 22 percent in the same period.

### 3.2 Respondents' Level of Education by Background Characteristics

Table 3.2 shows the distribution of women by the highest level of education attended or completed, according to selected characteristics. The table is shown to clarify the relationship between education and other explanatory or background variables used in later tabulations. Differences in the educational composition of respondents from different age groups, regions, and urban-rural backgrounds are of particular interest.

Table 3.2 Educational attainment by background characteristics							
Percent distribution of women by highest level of schooling attended or completed, and median number of years of schooling, according to background characteristics, Turkey 2003							
Background characteristic	No education/ Primary incomplete	First level primary	Second level primary	High school and higher	Total	Number of women	Median years of schooling
<b>Age</b>							
15-19	26.6	49.8	15.9	7.6	100.0	238	4.5
20-24	14.1	56.7	12.3	16.9	100.0	1,045	4.7
25-29	13.8	53.6	8.0	24.5	100.0	1,480	4.7
30-34	18.4	56.5	7.3	17.8	100.0	1,489	4.6
35-39	23.0	55.5	6.0	15.5	100.0	1,420	4.5
40-44	29.6	50.2	5.4	14.8	100.0	1,330	4.4
45-49	32.8	50.0	4.7	12.5	100.0	1,073	4.4
<b>Residence</b>							
Urban	18.3	50.9	9.0	21.8	100.0	5,752	4.7
Rural	30.5	60.8	3.6	5.0	100.0	2,323	4.3
<b>Region</b>							
West	14.6	56.0	8.7	20.7	100.0	3,286	4.7
South	23.6	53.1	7.9	15.4	100.0	1,028	4.5
Central	13.2	62.8	7.2	16.9	100.0	1,867	4.6
North	19.6	57.0	6.5	16.9	100.0	590	4.6
East	51.8	33.9	4.9	9.4	100.0	1,305	0.0
<b>NUTS 1 Region</b>							
Istanbul	14.2	55.3	9.1	21.4	100.0	1,470	4.7
West Marmara	10.3	64.1	9.1	16.5	100.0	348	4.6
Aegean	16.1	58.3	6.8	18.7	100.0	1,157	4.6
East Marmara	13.6	56.9	9.8	19.7	100.0	710	4.7
West Anatolia	12.0	56.8	8.3	22.9	100.0	784	4.7
Mediterranean	23.6	53.1	7.9	15.4	100.0	1,028	4.5
Central Anatolia	18.0	63.6	6.1	12.3	100.0	471	4.5
West Black Sea	12.4	67.6	5.5	14.6	100.0	513	4.6
East Black Sea	25.5	49.4	7.3	17.9	100.0	291	4.5
Northeast Anatolia	42.1	39.3	5.1	13.4	100.0	245	4.2
Central East Anatolia	50.2	34.1	5.2	10.5	100.0	389	0.0
Southeast Anatolia	56.3	31.9	4.6	7.2	100.0	671	0.0
Total	21.8	53.7	7.4	17.0	100.0	8,075	4.6

Owing to increases and spread of education in recent decades in Turkey, older women are less educated than younger women. A third of women in the final age group have had no educational level completed, but this proportion declines to 14 percent in the 20-24 and 25-29 age groups. A striking 25 percent of women in the latter age group have completed at least high school.

Urban women in Turkey are much more likely to have higher education than their rural counterparts. Thirty one percent of rural women have no educational level completed, compared to only 18 percent of urban women. Conversely, while 22 percent of urban women have completed at least high school, this figure is a mere 5 percent in rural areas. The least educated women are in the East region, particularly in Central East Anatolian and Southeast Anatolian NUTS 1 regions, where the median years of schooling is 0.0, compared with the national average of 4.6 years. On the other hand, women in half of the NUTS 1 regions have more than 4.5 median years of schooling. In İstanbul and West Anatolia, more than a fifth of women have completed at least high school.

### **3.3 Employment and Occupation**

The TDHS-2003 collected information on the current employment of women. Employment, like education, can be a source of empowerment of women, particularly if it is accompanied with control over income. However, because women may not perceive some of their activities—such as unpaid family work—as employment, it can be difficult to collect information on the subject. In the TDHS-2003, a number of questions were asked about employment to ensure that informal or potentially ill-defined activities were captured.

Table 3.3 indicates that 42 percent of women report being employed during the 12-month period before the interview. The majority of these women (27 percent) were working at the time of the survey. The proportion of women not employed during the 12 months preceding the survey is inversely correlated with women’s age—younger women tend to be employed less than their older counterparts. A strong association exists between employment and marital status—employment among women not currently married is substantially higher than among currently married women, possibly as a result of women assuming the role of breadwinner in the absence of a husband.

As expected, childbearing has an impact on employment, where nulliparous women are more likely to be employed than women who have children. Also shown in the table is the finding that women in the North are economically more active than their counterparts in other regions. The lowest level of employment is among women in the Central and East regions. The distribution by NUTS 1 regions reveals that more than half of women in the West Marmara, Aegean, West Black Sea, and Northeast Anatolia, and two-thirds of women in the East Black Sea region are employed at any time during the last 12 months. The table also shows that current employment is more common among better educated women (38 percent).

Table 3.3 Employment status

Percent distribution of women by employment status, according to background characteristics, Turkey 2003

Background characteristic	Employed in the 12 months preceding the survey		Not employed in 12 months preceding the survey	Don't know/missing	Total	Number of women
	Currently employed	Not currently employed				
<b>Age</b>						
15-19	18.7	18.2	63.1	0.0	100.0	238
20-24	18.4	15.7	65.9	0.1	100.0	1,045
25-29	24.1	14.5	61.4	0.0	100.0	1,480
30-34	27.7	16.0	56.3	0.0	100.0	1,489
35-39	35.5	12.4	52.2	0.0	100.0	1,420
40-44	30.4	14.2	55.3	0.0	100.0	1,330
45-49	25.0	14.8	60.2	0.0	100.0	1,073
<b>Marital status</b>						
Married or living together	26.1	14.6	59.2	0.0	100.0	7,672
Divorced/separated/widowed	43.9	15.2	40.9	0.0	100.0	403
<b>Number of living children</b>						
0	30.1	22.9	46.9	0.1	100.0	736
1-2	27.6	12.7	59.7	0.0	100.0	4,234
3-4	24.7	15.6	59.7	0.0	100.0	2,312
5+	28.0	14.7	57.4	0.0	100.0	794
<b>Residence</b>						
Urban	21.7	11.1	67.2	0.0	100.0	5,752
Rural	40.1	23.6	36.3	0.0	100.0	2,323
<b>Region</b>						
West	27.8	14.7	57.5	0.0	100.0	3,286
South	25.3	15.6	59.1	0.0	100.0	1,028
Central	24.9	13.8	61.2	0.0	100.0	1,867
North	32.3	27.2	40.4	0.1	100.0	590
East	26.8	9.4	63.7	0.0	100.0	1,305
<b>NUTS 1 Region</b>						
İstanbul	24.3	9.3	66.4	0.0	100.0	1,470
West Marmara	29.8	21.7	48.5	0.0	100.0	348
Aegean	37.1	19.8	43.1	0.0	100.0	1,157
East Marmara	25.2	11.5	63.3	0.0	100.0	710
West Anatolia	21.9	11.3	66.8	0.0	100.0	784
Mediterranean	25.3	15.6	59.1	0.0	100.0	1,028
Central Anatolia	20.4	13.5	66.1	0.0	100.0	471
West Black Sea	25.0	27.9	47.0	0.1	100.0	513
East Black Sea	36.2	28.8	34.9	0.0	100.0	291
Northeast Anatolia	42.1	9.5	48.4	0.0	100.0	245
Central East Anatolia	29.4	5.9	64.6	0.2	100.0	389
Southeast Anatolia	19.8	11.4	68.8	0.0	100.0	671
<b>Education</b>						
No education/Prim. incomp.	26.3	14.5	59.2	0.0	100.0	1,761
First level primary	24.6	16.8	58.7	0.0	100.0	4,339
Second level primary	21.1	9.9	69.0	0.0	100.0	601
High school and higher	38.2	10.4	51.3	0.1	100.0	1,374
Total	27.0	14.7	58.3	0.0	100.0	8,075



### 3.4 Decision on Use of Earnings

The status of women correlates strongly with their independence in making decisions on the use of their earnings. Table 3.4 shows that around 38 percent of women make their own decisions about the use of their earnings, half of women decide jointly with their husband or others, and 10 percent are not involved in the decisions. Independent decision making with regard to the use of earnings is higher among older women, while 26 percent of women in age group 15-19 have no say in how their earnings are to be used.

Independent decision making is also higher among women not currently married, and correlated positively with increasing numbers of children. While urban women are more in control of their earnings, women in the East constitute the group of women in the country with the least say in the use of their earnings. This is particularly highlighted in Southeast Anatolia.

A very small proportion of women with high school or more education declared that they do not have a say in the decision on use of earnings (1 percent). Close to two-thirds of these women take such decisions with their husbands or others (63 percent), while independent decision making is the least common among women with less education: women who have no education or have not completed the first level primary school cite others to a larger extent as prime decision-makers in the use of their earnings.

Table 3.4 also shows the proportion of household expenditures met by women's earnings, as perceived by women. In general, women's earnings meet almost none or less than half of the expenditures of households for 57 percent of cases. Women whose earnings meet half or more of household expenditures account for 42 percent. Women's earnings are particularly important contributions to household expenditures in cases when the woman is not currently married.

Women whose earnings meet all expenditures are mostly women at comparatively older ages, women who are divorced, separated or widowed; nulliparous women; and women with higher education. Although regional variation is not very pronounced, more than 40 percent of women living in the West and North regions meet all or more than half of the expenditures with their earnings.

Table 3.5 shows the relationship between the decision on how earnings of women are used and the proportion of household expenditures met by women's earnings. The table is confined to currently married women since the numbers of women who were not married at the time of interview was too low to allow meaningful analyses. The table shows an interesting relationship between the two variables. In cases when the woman's earnings do not contribute significantly to meeting the household expenditures, independent decision making among women is more common (56 percent) than the national average (32 percent). Conversely, it is interesting to note that in cases when the woman's earnings meet all of the household's needs, significant proportions of women still decide on how their earnings will be used jointly with their husband (55 percent) or have no say in how they will be used—for 9 percent of women, husbands make the decision, for 6 percent, others.

Table 3.4 Decision on use of earnings and contribution of earnings to household expenditures

Percent distribution of women employed in the 12 months preceding the survey receiving cash earnings by person who decides how earnings are to be used and by proportion of household expenditures met by earnings, according to background characteristics, Turkey 2003

Background characteristic	Person deciding how earnings are used					Proportion of expenditures met by earnings						Number of women
	Self only	Jointly	Someone else only	Missing	Total	Almost none/none	Less than half	Half or more	All	Missing	Total	
<b>Age</b>												
15-19	(28.4)	(45.4)	(26.2)	(0.0)	100.0	(25.9)	(51.6)	(22.5)	(0.0)	(0.0)	100.0	45
20-24	33.0	54.1	12.8	0.0	100.0	16.4	41.9	34.3	5.4	2.0	100.0	195
25-29	32.7	59.8	7.5	0.0	100.0	13.5	41.0	35.0	9.2	1.2	100.0	376
30-34	35.9	56.6	7.2	0.3	100.0	13.6	48.7	28.0	8.6	1.1	100.0	398
35-39	41.7	46.6	11.4	0.3	100.0	11.0	46.9	29.7	11.0	1.4	100.0	407
40-44	41.3	48.5	10.2	0.0	100.0	9.3	43.6	35.9	9.7	1.6	100.0	365
45-49	41.1	48.9	10.0	0.0	100.0	10.1	41.0	36.1	11.0	1.7	100.0	207
<b>Marital status</b>												
Married or living together	32.0	57.1	10.7	0.1	100.0	12.7	46.1	33.4	6.4	1.3	100.0	1,782
Divorced/separated/widowed	84.6	12.3	3.1	0.0	100.0	10.0	31.2	24.3	32.4	2.0	100.0	210
<b>Number of living children</b>												
0	37.0	55.9	7.1	0.0	100.0	12.8	30.7	41.7	13.7	1.1	100.0	267
1-2	36.5	55.9	7.6	0.1	100.0	11.3	44.7	33.8	9.1	1.1	100.0	1,177
3-4	39.8	44.2	15.7	0.2	100.0	13.7	50.8	26.9	6.9	1.7	100.0	445
5+	42.2	38.8	19.1	0.0	100.0	18.7	51.5	17.0	8.1	4.7	100.0	103
<b>Residence</b>												
Urban	40.3	53.8	5.9	0.1	100.0	10.7	42.8	36.2	9.2	1.1	100.0	1,551
Rural	27.9	47.5	24.3	0.2	100.0	18.6	50.7	19.3	9.0	2.4	100.0	442
<b>Region</b>												
West	36.8	54.7	8.5	0.0	100.0	10.9	43.5	34.9	9.6	1.0	100.0	1,048
South	37.0	50.4	11.8	0.8	100.0	15.0	46.8	28.5	8.1	1.7	100.0	254
Central	38.7	51.8	9.5	0.0	100.0	12.7	47.3	31.0	8.5	0.5	100.0	405
North	47.8	46.1	6.1	0.0	100.0	14.4	44.2	31.8	9.5	0.0	100.0	121
East	32.9	46.9	20.3	0.0	100.0	15.9	41.6	27.0	8.9	6.6	100.0	165
<b>NUTS 1 Region</b>												
İstanbul	44.3	49.4	6.4	0.0	100.0	10.0	40.8	39.9	8.3	1.0	100.0	455
West Marmara	22.2	67.3	10.6	0.0	100.0	18.2	34.6	37.7	8.4	1.1	100.0	102
Aegean	30.3	54.5	15.2	0.0	100.0	10.4	51.2	27.9	9.3	1.2	100.0	428
East Marmara	40.3	56.2	3.5	0.0	100.0	9.9	48.3	30.0	11.9	0.0	100.0	173
West Anatolia	37.1	59.7	3.2	0.0	100.0	8.0	43.7	37.8	9.9	0.6	100.0	176
Mediterranean	37.0	50.4	11.8	0.8	100.0	15.0	46.8	28.5	8.1	1.7	100.0	254
Central Anatolia	45.6	46.6	7.8	0.0	100.0	21.6	41.6	27.3	8.5	1.0	100.0	82
West Black Sea	46.4	44.4	9.2	0.0	100.0	20.4	40.0	29.0	10.6	0.0	100.0	96
East Black Sea	48.6	46.8	4.6	0.0	100.0	10.4	44.5	35.8	9.3	0.0	100.0	60
Northeast Anatolia	38.4	54.5	7.1	0.0	100.0	27.0	41.3	26.0	3.1	2.5	100.0	32
Central East Anatolia	45.7	42.5	11.8	0.0	100.0	19.1	45.9	25.8	6.0	3.3	100.0	44
Southeast Anatolia	24.5	46.3	29.2	0.0	100.0	10.5	39.5	27.9	12.4	9.8	100.0	89
<b>Education</b>												
No educ./Prim.incom.	34.7	43.2	21.7	0.3	100.0	12.2	47.5	27.9	8.2	4.2	100.0	314
First level primary	39.1	48.8	12.0	0.0	100.0	16.0	52.7	23.3	6.9	1.1	100.0	932
Second level primary	40.4	52.8	6.8	0.0	100.0	16.7	42.7	30.4	10.2	0.0	100.0	149
High school and higher	36.0	62.6	1.3	0.2	100.0	6.0	30.8	49.6	12.9	0.8	100.0	598
Total	37.6	52.4	9.9	0.1	100.0	12.4	44.6	32.4	9.2	1.4	100.0	1,992

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases.

**Table 3.5 Women's control over earnings**

Percent distribution of currently married women who received cash earnings for work in the past 12 months by person who decides how earnings are used, according to the proportion of household expenditures met by earnings, Turkey 2003

Contribution to household expenditures	Self only	Jointly with husband	Jointly with someone else	Husband only	Someone else only	Missing	Total	Number of women
Almost none/none	55.7	31.6	0.0	11.1	1.2	0.5	100.0	227
Less than half	33.5	54.1	0.4	10.1	1.9	0.0	100.0	822
Half or more	22.1	71.9	0.2	5.3	0.5	0.0	100.0	595
All	30.3	55.2	0.0	9.0	5.5	0.0	100.0	114
Missing	(11.5)	(26.8)	(0.0)	(42.9)	(14.2)	(4.6)	100.0	24
Total	32.0	56.9	0.2	9.0	1.8	0.1	100.0	1,782

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases.

### 3.5 Domestic Violence: Women's Attitudes towards Being Subject to Physical Violence

Recent years have witnessed an increasing interest in violence against women, in particular domestic violence. Domestic violence against women is acknowledged worldwide as a violation of the basic human rights of women. Tolerance and experience of domestic violence form significant barriers to the empowerment of women and women's autonomy in all spheres of social life and have adverse consequences for women's health, health-seeking behavior, and the health of their children. In the TDHS-2003, women were asked a number of questions on their attitudes regarding especially physical violence, which is one of the special types of domestic violence, with regard to whether they viewed physical violence as justified under given circumstances.

Women were asked whether a husband would be justified in beating his wife for each of the following reasons separately: if she burns the food, if she argues with him, if she spends too much money, if she neglects the children, and if she refuses to have sex with him. Table 3.6 gives the percentages of ever-married women who agree with the specified reasons for wife beating by background characteristics.

Thirty-nine percent of women accept at least one reason as a justification for wife beating. Women are most likely to think that wife beating would be justified in cases when the woman argues with the husband (29 percent), spends too much money (27 percent) and neglects the children (23 percent). Only 6 percent of women agree that wife beating would be justified if the woman burns the food. Younger women, currently married women, and women with high fertility are more likely than their counterparts to think that wife beating is justified for at least one of the reasons.

Table 3.6 Women's attitude toward wife beating

Percentage of women who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Turkey 2003

Background characteristic	Husband is justified in hitting or beating his wife if she:					Agrees with at least one specified reason	Number of women
	Burns the food	Argues with him	Spends too much money	Neglects the children	Refuses to have sex with him		
<b>Age</b>							
15-19	8.3	52.4	38.7	33.1	21.5	63.0	238
20-24	4.9	31.2	28.5	23.4	12.6	40.2	1,045
25-29	3.4	25.0	21.9	19.9	12.2	35.3	1,480
30-34	4.8	26.9	24.1	22.7	12.8	37.0	1,489
35-39	7.3	30.0	29.3	23.6	19.1	40.3	1,420
40-44	7.2	28.1	29.1	23.8	19.6	39.2	1,330
45-49	7.0	30.2	28.5	24.8	21.5	39.8	1,073
<b>Marital status</b>							
Married or living together	5.7	29.5	27.3	23.2	16.3	39.6	7,672
Divorced/separated/widowed	7.1	21.7	21.8	23.4	15.2	31.5	403
<b>Number of living children</b>							
0	5.9	30.0	26.9	24.0	14.5	37.9	736
1-2	3.7	22.9	20.7	18.2	11.1	31.8	4,234
3-4	6.5	33.3	31.0	26.8	19.9	44.7	2,312
5+	14.8	48.6	49.4	38.8	35.2	63.6	794
<b>Residence</b>							
Urban	3.3	22.2	20.3	18.9	12.0	32.1	5,752
Rural	12.0	46.0	43.7	33.7	26.8	56.6	2,323
<b>Region</b>							
West	3.5	22.9	21.0	19.2	12.6	32.5	3,286
South	4.6	31.1	30.7	24.8	17.4	43.2	1,028
Central	7.0	34.0	30.0	24.6	16.5	42.9	1,867
North	4.6	24.5	25.0	23.5	15.0	35.5	590
East	11.3	37.9	36.0	29.7	25.1	49.2	1,305
<b>NUTS 1 Region</b>							
Istanbul	1.6	17.7	16.7	15.2	9.5	26.8	1,470
West Marmara	4.8	24.2	23.9	21.1	12.2	35.0	348
Aegean	8.5	37.2	32.6	28.6	20.2	46.7	1,157
East Marmara	2.8	21.9	19.4	18.4	13.1	31.3	710
West Anatolia	6.7	27.7	25.4	21.1	12.1	35.1	784
Mediterranean	4.6	31.1	30.7	24.8	17.4	43.2	1,028
Central Anatolia	4.8	36.1	30.7	25.9	17.8	47.8	471
West Black Sea	5.3	28.7	28.5	24.2	15.3	39.6	513
East Black Sea	3.8	23.6	22.7	20.9	14.5	33.7	291
Northeast Anatolia	12.8	38.5	37.7	30.9	25.2	50.4	245
Central East Anatolia	10.0	34.2	33.2	28.6	21.9	45.9	389
Southeast Anatolia	11.6	39.8	37.1	30.0	26.9	50.6	671
<b>Education</b>							
No education/Prim. incomp.	14.9	49.2	47.5	38.5	33.2	62.1	1,761
First level primary	4.6	30.6	28.0	24.4	15.7	42.1	4,339
Second level primary	0.7	13.2	10.4	11.2	4.4	20.8	601
High school and higher	0.2	5.3	5.2	5.0	1.7	8.8	1,374
<b>Employment</b>							
Not employed	5.1	28.1	25.6	22.4	15.4	38.2	5,892
Employed for cash	3.0	21.5	22.1	18.4	11.2	30.3	1,339
Employed not for cash	15.3	47.8	45.2	36.7	30.6	60.7	842
Total	5.8	29.1	27.0	23.2	16.3	39.2	8,075

There are differences in terms of justification of violence between women who live in urban versus rural areas, and between women living in different regions. While 57 percent of women in rural areas think that wife beating would be justified in at least one of the circumstances specified, the proportion drops to 32 percent for urban women. For both urban and rural women, arguing with the husband is the most often agreed reason for wife beating. Almost half of women in the East agree with at least one of the circumstances specified (49 percent). In two NUTS 1 regions in the western areas of the country, Northeast Anatolia and Southeast Anatolia, the proportion is above 50 percent. The proportion drops to 33 percent in the West and 36 percent in the North. The proportion is at its lowest in İstanbul.

The table clearly shows the importance of women's education in the elimination of wife beating, although it is still interesting that even among women who have completed at least high school (have completed at least 11 grades), 9 percent agree to wife beating for some reason. Among women with little or no education, two-thirds of women (62 percent) agree with at least one specified reason for wife beating. The most common reason cited by these women is arguing with the husband (49 percent) and spending too much money (48 percent). As expected, women who are not employed in the formal sector but who are possibly employed in the family business justify wife beating more than their counterparts (61 percent).

### **3.6 Child Care While Working**

Table 3.7 focuses on the welfare of children under six years of age whose mothers are employed. Of women who worked in the 12 months prior to the survey, 63 percent had no children under 6 years of age. For the 37 percent of women who have one or more children, childcare is an important issue in participating in the labor force. Overall, in Turkey the main source of child care is either the mother or the relatives. The proportion of institutional care is very small with less than 5 percent. Relatives constitute a substantial proportion in taking care of children. In 37 percent of the cases, the mother takes care of children indicating that she is either taking the child with her to work or she is working at home. In one fifth of the cases it is the husband's mother (21 percent) who takes care of the children under 6 years of age while their mother is at work. It is seen that besides the mother and mother-in-law, an older female child sometimes takes the responsibility (10 percent) for her brother(s)/sister(s).

If it is the mother who takes care of the children less than six years of age, then these women are more likely to be rural women, women who do not have education above second level primary school, women living in the South and East regions and those who work on an occasional basis. It is worth noting that having an agricultural or non agricultural occupation does not cause much difference in terms of child care for children less than six while mother is at work (36 and 38 percent respectively).

On one hand, the results reflect the presence of intra-family solidarity in childrearing; on the other, they also underline the patriarchal structure of the society. When persons other than the mother are considered, it is the husband's mother rather than the woman's mother who is taking care of children.

### 3.7 Child care while working

Percentage of employed women with and without a child under six years of age and percent distribution of employed mothers of a child under six years of age by person who cares for child while mother is at work, according to background characteristics, Turkey 2003

Background characteristic	No children under 6 years	One or more children	Child's caretaker while mother is at work											Total	Number of women	
			Respondent	Husband/partner	Older female child	Woman's mother	Husband's mother	Older male child	Other relative	Servant, hired help	Institutional care	No work since birth	Other			
<b>Residence</b>																
Urban	67.4	32.6	34.0	2.7	7.4	13.4	16.5	0.5	5.4	7.6	8.9	2.9	0.4	0.3	100.0	1,887
Rural	58.2	41.8	40.2	2.3	13.5	4.8	26.2	1.6	7.5	0.5	0.3	2.2	0.8	0.2	100.0	1,479
<b>Education</b>																
No educ./Prim.	60.2	39.8	39.8	0.7	28.3	3.2	15.7	3.4	6.6	0.0	0.0	0.7	1.3	0.4	100.0	718
First level prm.	64.6	35.4	44.4	3.1	7.3	8.9	24.4	0.3	7.2	0.7	0.3	2.7	0.6	0.1	100.0	1,793
Second level prm.	63.1	36.9	43.7	7.7	1.5	9.1	21.2	1.6	7.2	0.0	4.0	3.3	0.0	0.6	100.0	187
High school and higher	63.4	36.6	13.3	1.6	0.2	16.2	20.2	0.0	4.4	18.5	21.3	4.0	0.0	0.4	100.0	668
<b>Region</b>																
West	72.3	27.7	30.1	2.3	6.4	15.6	20.8	1.0	5.6	6.2	7.4	4.2	0.2	0.2	100.0	1,398
South	59.4	40.6	47.2	2.8	7.5	9.4	17.6	1.3	5.3	3.4	2.4	1.9	0.3	0.9	100.0	421
Central	63.0	37.0	35.7	3.3	7.2	9.3	24.1	0.8	7.3	4.1	5.6	1.8	0.7	0.0	100.0	724
North	63.9	36.1	34.9	4.8	11.8	2.3	31.1	0.9	7.4	1.8	3.4	1.2	0.0	0.3	100.0	351
East	40.5	59.5	43.1	0.6	20.2	2.7	17.4	1.3	7.2	2.3	1.6	2.0	1.5	0.1	100.0	473
<b>NUTS 1 Region</b>																
Istanbul	73.1	26.9	34.7	2.5	8.5	11.9	11.7	2.1	4.8	6.6	12.1	5.0	0.0	0.0	100.0	494
West Marmara	71.7	28.3	26.1	1.6	10.0	14.1	28.6	2.3	3.2	7.9	0.0	3.2	1.6	1.6	100.0	179
Aegean	72.1	27.9	30.8	3.2	3.2	15.6	30.0	0.0	3.6	4.4	5.9	3.3	0.0	0.0	100.0	659
East Marmara	71.7	28.3	18.0	2.3	4.7	16.1	27.5	1.4	14.5	8.6	4.2	2.6	0.0	0.0	100.0	261
West Anatolia	58.3	41.7	35.0	0.0	8.2	14.7	13.0	1.0	9.4	4.8	10.3	2.6	1.0	0.0	100.0	260
Mediterranean	59.4	40.6	47.2	2.8	7.5	9.4	17.6	1.3	5.3	3.4	2.4	1.9	0.3	0.9	100.0	421
Central Anatolia	57.7	42.3	33.9	5.4	14.2	7.2	25.5	0.0	3.5	2.4	3.7	3.0	1.2	0.0	100.0	159
West Black Sea	69.3	30.7	40.9	4.2	4.3	1.7	33.2	0.0	8.3	2.3	3.3	1.9	0.0	0.0	100.0	271
East Black Sea	56.7	43.3	39.9	6.2	13.9	3.0	24.5	1.4	7.2	1.5	2.0	0.0	0.0	0.5	100.0	189
Northeast Anatolia	46.7	53.3	60.7	0.0	11.2	1.9	16.2	1.2	4.5	1.0	1.4	1.4	0.0	0.5	100.0	126
Central East Anatolia	41.9	58.1	35.5	0.0	26.6	2.6	17.4	0.7	7.2	1.5	3.0	2.2	3.2	0.0	100.0	137
Southeast Anatolia	35.7	64.3	38.7	1.3	20.9	3.1	17.9	1.7	8.5	3.5	0.9	2.2	1.3	0.0	100.0	209
<b>Occupation</b>																
Agricultural	61.1	38.9	35.7	1.6	14.9	6.5	28.8	1.3	7.8	0.2	0.0	2.1	0.5	0.4	100.0	1,323
Non-agricultural	64.8	35.2	38.2	3.1	7.2	10.9	16.0	0.9	5.5	6.7	7.9	2.9	0.7	0.2	100.0	2,042
<b>Continuity of employment</b>																
All year	65.9	34.1	28.8	1.8	11.7	10.1	20.0	0.5	5.7	8.3	9.2	2.9	0.7	0.2	100.0	1,705
Seasonal	61.8	38.2	39.0	2.1	11.4	5.7	27.4	1.2	8.3	0.1	0.7	2.8	0.8	0.4	100.0	1,203
Occasional	58.0	42.0	58.3	5.4	4.3	12.9	11.0	2.3	4.7	0.3	0.0	0.8	0.0	0.0	100.0	454
Missing	*	*	*	*	*	*	*	*	*	*	*	*	*	*	100.0	4
Total	63.3	36.7	37.1	2.5	10.4	9.0	21.3	1.1	6.5	4.0	4.6	2.6	0.6	0.3	100.0	3,366

Note: An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.



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This chapter looks at a number of fertility indicators including levels, patterns, and trends in both current and cumulative fertility; the length of birth intervals; and the age at which women initiate childbearing. Information on current and cumulative fertility is essential in monitoring the progress and evaluating the impact of the population program in Turkey. The data on birth intervals are important since short intervals are strongly associated with childhood mortality. The age at which childbearing begins may also have a major impact on the health and well-being of both the child and the mother.

Data on childbearing patterns were collected in the TDHS-2003 in several ways. First, each woman was asked a series of questions on the number of her sons and daughters living with her, the number living elsewhere, and the number who may have died. Next, a complete history of all of the woman's births was obtained, including the name, sex, month and year of birth, age, and survival status for each of the births. For living children, a question was asked about whether the child was living in the household or away. For dead children, the age at death was recorded.

#### **4.1 Current Fertility**

The level of current fertility is one of the most important topics in this report because of its direct relevance to population policies and programs. Measures of current fertility presented in this chapter include age-specific fertility rates, the total fertility rate, the general fertility rate, and the crude birth rate. These rates are generally presented for the three-year period preceding the survey. The three-year period was chosen for calculating these rates (rather than a longer or a shorter period) to provide the most current information, to reduce sampling error, and to avoid problems of the displacement of births.

Age-specific fertility rates are useful in understanding the age pattern of fertility. Numerators of age-specific fertility rates are calculated by identifying live births that occurred in the 1 to 36 months preceding the survey (determined from the date of interview and date of birth of the child), and classifying them by the age (in five-year age groups) of the mother at the time of the child's birth. The denominators of these rates are the number of woman-years lived in each of the specified five-year age groups during the 1 to 36 months preceding the survey. Although information on fertility was obtained only for ever-married women, the age-specific rates are presented for all women regardless of marital status. Data from the household questionnaire on the age structure of the population of never-married women were used to calculate the all-women rates. This procedure assumes that women who have never been married have had no children.



The total fertility rate (TFR) is a useful measure for examining the overall level of current fertility. TFR is a construct of the age-specific rates computed by summing the age-specific rates and multiplying by five. It can be interpreted as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed age-specific rates. The general fertility rate (GFR) represents the annual number of births in a population per 1,000 women age 15-44. The crude birth rate (CBR) is the annual number of births in a population per 1,000 persons. Both measures are based on the birth history data for the three-year period before the survey and the age-sex distribution of the household population.

Current estimates of fertility levels by residence are presented in Table 4.1. The total fertility rate indicates that if fertility rates were to remain constant at the level prevailing during the three-year period before the TDHS-2003 (approximately June 2001 to May 2004), a woman in Turkey would bear 2.23 children during her lifetime. In rural areas, the TFR is 2.65 births per woman, and decreases around two children (2.06) in urban areas. When compared with evidence from previous demographic surveys, the urban-rural gap in fertility levels appears to be closing in Turkey.

Table 4.1 Current fertility			
Age-specific and cumulative fertility rates, general fertility rate, and crude birth rate for the three years preceding the survey, by urban-rural residence, Turkey 2003			
Age group	Urban	Rural	Total
15-19	44	47	46
20-24	126	161	136
25-29	126	158	134
30-34	71	94	78
35-39	33	48	38
40-44	11	16	12
45-49	0	6	2
TFR 15-49	2.06	2.65	2.23
TFR 15-44	2.06	2.62	2.22
GFR 15-44	74	90	79
CBR	19	21.1	19.7

Note: Rates are for the period 1-36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.  
TFR: Total fertility rate expressed per woman  
GFR: General fertility rate (births divided by number of women 15-44), expressed per 1,000 women  
CBR: Crude birth rate, expressed per 1,000 population

Table 4.1 and Figure 4.1 show that women in Turkey experience their prime reproductive years during their twenties. According to current age schedule of fertility, the average woman in Turkey will have one child by age 25 and two children by age 30. At every age rural women bear more children than urban women. The rural age-specific fertility rates rise sharply from age 15-19 to the peak at age 20-24, and then gradually decline. On the other hand, the urban age-specific fertility rates assume a more gradual pattern, an indication both

of delayed marriage and some deliberate attempt to postpone or terminate births by urban women.

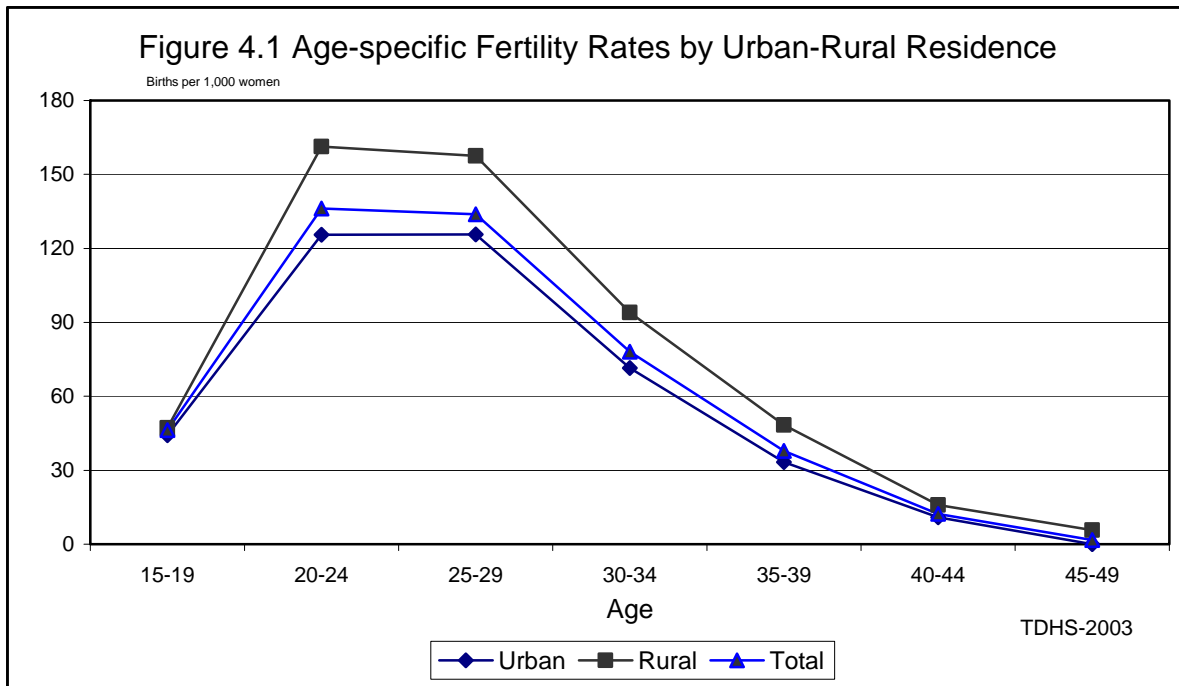


Table 4.1 also presents two other summary measures of fertility: the crude birth rate and the general fertility rate. The crude birth rate in Turkey is 19.7 births per 1,000 population. As with TFR, there is a slight differential in this rate by residence: 19 births per 1000 in urban areas versus 21.1 births per 1,000 in rural areas. The general fertility rate of 79 indicates that 1,000 women age 15-44 would have 79 live births per year. The GFR also indicates a significant urban-rural difference.

## 4.2 Fertility Differentials

Table 4.2 highlights TFRs for the three years preceding the survey by background characteristics. The greatest regional variation in fertility is seen between East region and the rest of Turkey. With a TFR of 3.65, women in eastern part of Turkey have a TFR that is about one and a half births more than women elsewhere in Turkey who exhibit TFRs below 2.1, known as replacement level, with the exception of South region, which exhibits slightly over replacement fertility. Among the NUTS 1 regions, the fertility is below the replacement level (1.83) in İstanbul, while in the Southeast Anatolia it is twice the level of replacement fertility.

Table 4.2 also shows the mean number of children ever born (CEB) to women age 40-49. Trends in fertility can be inferred by comparing the TFR (a measure of current fertility) with the number of CEB (a measure of completed fertility). If fertility is stable over time in a population, the TFR and the mean CEB for women 40-49 will be similar. If fertility levels have been falling, the TFR will be substantially lower than the mean CEB among women age 40-49. The comparison of the TFR with the mean CEB among women 40-49 in Table 4.2

suggests that fertility has fallen sharply in Turkey over the past several decades. Women age 40-49 had an average of 3.5 births during their lifetime, over one birth more than women bearing children will have at the current rates. The decline in fertility implied by a comparison of the TFR with completed fertility has been greater in rural than in urban areas. The largest implied decline in fertility by region is observed in East region, where the TFR was approximately 2 and a half births lower than the mean number of children ever born to women 40-49.

Table 4.2 Fertility by background characteristics			
Total fertility rate for the three years preceding the survey, percentage of women 15-49 currently pregnant, and mean number of children ever born to women age 40-49, by background characteristics, Turkey 2003			
Background characteristic	Total fertility rate <sup>1</sup>	Percentage currently pregnant	Mean number of children ever born to women age 40-49
<b>Region</b>			
West	1.88	3.1	2.90
South	2.30	4.1	3.72
Central	1.86	3.9	3.43
North	1.94	2.9	3.41
East	3.65	6.9	6.07
<b>Selected NUTS 1 Regions</b>			
İstanbul	1.83	2.9	3.09
Southeast Anatolia	4.19	6.7	6.61
<b>Education</b>			
No educ./Prim. incomp.	3.65	5.6	4.98
First level primary	2.39	4.1	3.21
Second level primary	1.77	2.3	2.54
High school and higher	1.39	3.8	1.96
<b>Total</b>	<b>2.23</b>	<b>4.1</b>	<b>3.54</b>

<sup>1</sup> Women age 15-49 years

Table 4.2 presents marked differences in fertility levels and trends by education. The TFR decreases rapidly with increasing educational level, from 3.7 births among women with no education to 1.4 births among women who had completed high school or higher. The differentials in completed fertility across educational groups are even more striking. The mean number of children ever born is 5 among women age 40-49 with no education, compared with 2 among women who have completed high school or higher. With regard to the trend in fertility, the decline in fertility implied by a comparison of the TFR with the mean CEB is substantial for women with no education.

Another indicator of current fertility, the percentage of women who are currently pregnant, is included in Table 4.2. Overall, slightly more than 4 percent of the TDHS-2003 respondents were pregnant at the time of the survey. Women living in the eastern part of Turkey have the highest percentage currently pregnant (7 percent), while the percentage is

lowest in the West and North regions (3 percent). Surprisingly, the percentage of women who were pregnant is higher for women with a high school or higher education than for women with a secondary education. This may be due at least in part to the fact that, on average, highly-educated women are younger than women in the other education categories and thus more likely to be in the family-building stage than other women.

### 4.3 Fertility Trends

Trends in fertility can be assessed in several other ways. TFR estimates from the TDHS-2003 can be compared with estimates obtained in earlier surveys. Fertility changes can also be examined by using data from the birth histories obtained from the TDHS-2003 respondents to look at the trend in age-specific fertility rates for successive five-year periods before the survey.

#### 4.3.1 Comparison with Previous Surveys

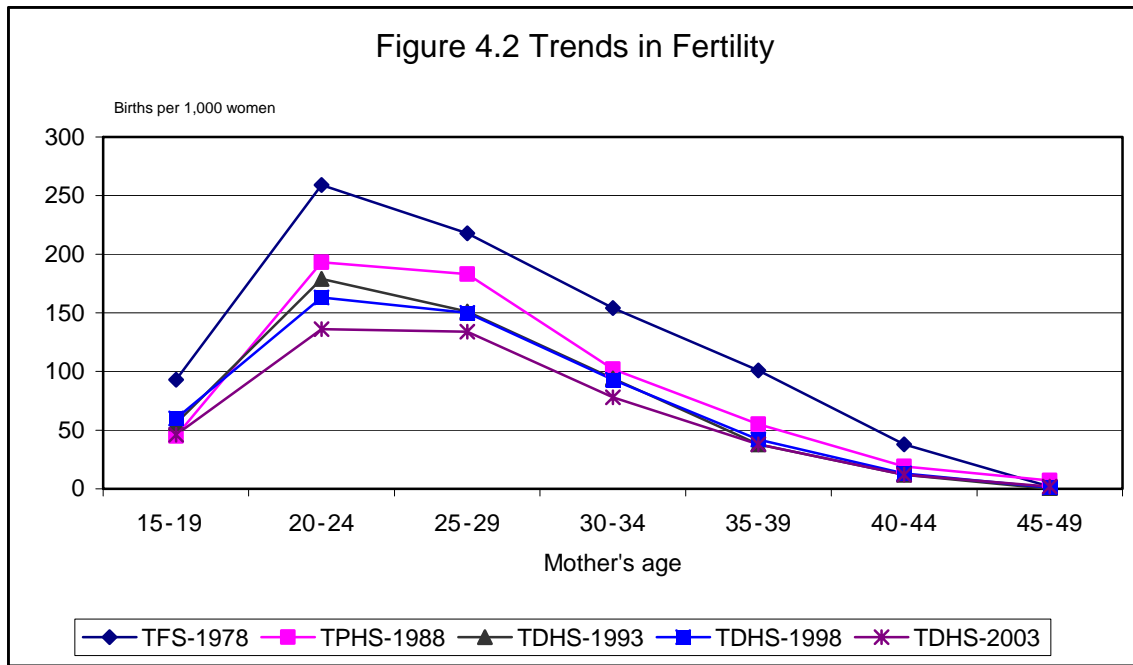
Table 4.3 shows the TFR estimates from a series of surveys conducted in Turkey during the period 1978 through 2003. The surveys vary in the timeframes for which the TFR estimates are available. For example, the rates from the 1978, 1988 and 1993 surveys are based on births in a one-year period before the survey, while the rates for the TDHS-1998 and TDHS-2003 surveys are based on a three-year period before the interview date.

Age	TFS-1978	TPHS-1988	TDHS-1993	TDHS-1998	TDHS-2003
15-19	93	45	56	60	46
20-24	259	193	179	163	136
25-29	218	183	151	150	134
30-34	154	102	94	93	78
35-39	101	55	38	42	38
40-44	38	19	12	13	12
45-49	2	7	0	1	2
TFR 15-49	4.33	3.02	2.65	2.61	2.23

Note: 1978, 1988 and 1993 rates refer to the year before the survey; 1998 and 2003 rates refer to the 3-year period before the survey.

As Table 4.3 and Figure 4.2 show, fertility levels have declined almost continuously in Turkey over the past 25 years, from a level of 4.3 births per woman at the time of the TFS-1978 to 2.2 births per woman at the time of the TDHS-2003. The decline in fertility was especially rapid during the period between the 1970s and the 1980s. After the TFR reached a level of below 3 births per woman at the time of the TDHS-1993, the pace of fertility decline slowed somewhat, and stabilized around 2.6 births on average in the 1990s. However after a stabilization period in fertility during the 1990s, TDHS-2003 puts forward a fertility decline by

15 percent in the period of 1998 and 2003. The fertility level reached by Turkey in 2000s is slightly over the replacement level of fertility.

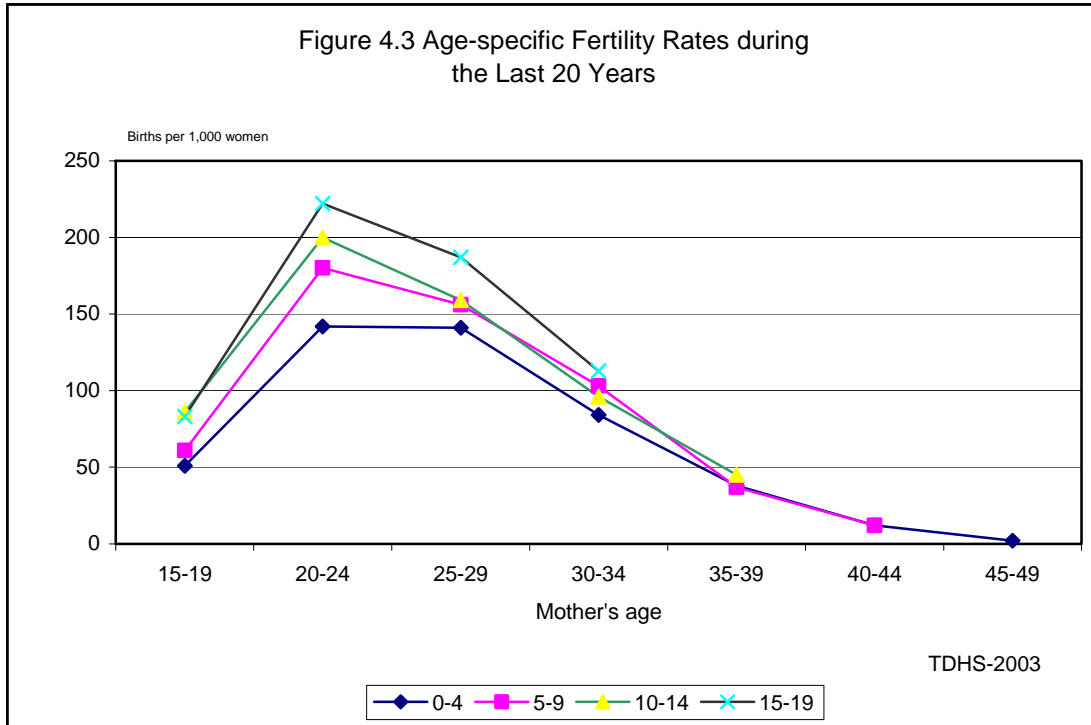


### 4.3.2 Retrospective Data from TDHS-2003 Birth Histories

Fertility trends can also be investigated using retrospective data from the birth histories collected from respondents in a single survey. The age-specific fertility rates shown in Table 4.4 and Figure 4.3 were generated from the birth history data collected in the TDHS-2003. The numerators of the rates are classified by five-year segments of time preceding the survey and the mother's age at the time of birth. Because women age 50 years and over were not interviewed in the TDHS-2003, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 45-49 for the period 5-9 years and more prior to the survey, because women in that age group would have been 50 years or older at the time of the survey.

Mother's age	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	51	61	86	83
20-24	142	180	200	222
25-29	141	156	159	187
30-34	84	103	96	[113]
35-39	38	37	[45]	
40-44	12	[12]		
45-49	[2]			

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.



The results in Table 4.4 and Figure 4.3 confirm that fertility has fallen substantially among all age groups, with the most rapid relative decline occurring in the 15-19 age group. Overall, the cumulative fertility rate for women age 15-34 decreased by one birth, from 3.0 births per woman during the period 15-19 years before the survey to 2.1 births per woman in the five-year period preceding the survey.

**Table 4.5 Fertility by marital duration**

Fertility rates for ever-married women by duration since first marriage in years, for five-year periods preceding the survey, Turkey 2003

Marriage duration at birth	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
0-4	278	293	324	334
5-9	154	177	170	213
10-14	89	99	110	153
15-19	41	56	78	[111]
20-24	17	27	[49]	[117]
25-29	9	[16]	[38]	

Note: Age-specific fertility rates are per 1,000 women. Estimates enclosed in brackets are truncated.

Table 4.5 presents fertility rates for ever-married women by duration since first marriage for five-year periods preceding the survey. The decline in fertility has occurred at all marital durations; however, the decline is greatest among women with longer marital durations. Fertility within the first several years of marriage typically remains resistant to change, even when fertility is declining, because fertility decline usually begins among older

women who want to stop childbearing, not among young couples postponing births. Table 4.5 indicates rapid declines in fertility for all marital durations of five or more years, and a 17 percent decline for marriages of less than five years.

#### 4.4 Children Ever Born and Living

Table 4.6 presents the distribution of all women and of currently married women by the total number of children ever born. The distribution is the outcome of each woman's lifetime fertility. It reflects the accumulation of births over the past 30 years and therefore its relevance to the current situation is limited. However, the information is useful in looking at how average family size varies across age groups and for looking at the level of primary infertility.

Since only ever-married women were interviewed in the TDHS-2003, information on the reproductive histories of never-married women is not available. However, virtually all births in Turkey occur within marriage; thus, in calculating these fertility measures for all women, never-married women were assumed to have had no births. The marked differences between the results for currently married women and for all women at the younger ages are due to the comparatively large numbers of never-married women in those age groups who, as noted, are assumed to have had no births.

Table 4.6 Children ever born and living															
Percent distribution of all women and of currently married women by number of children ever born (CEB) and mean number of children ever born and living, according to five-year age groups, Turkey 2003															
Age of mother	Number of children ever born											Total percent	Number of women	Mean number of CEB	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	94.3	4.8	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,003	0.07	0.07
20-24	61.8	22.5	11.5	3.1	0.8	0.3	0.0	0.0	0.0	0.0	0.0	100.0	2,101	0.59	0.57
25-29	27.9	24.0	28.8	11.2	4.5	2.1	0.5	0.4	0.5	0.0	0.0	100.0	1,849	1.54	1.48
30-34	13.4	14.8	32.4	20.4	9.2	3.7	2.4	2.0	0.8	0.7	0.2	100.0	1,622	2.39	2.25
35-39	8.3	9.6	30.4	23.5	12.9	6.0	3.5	2.2	1.3	1.0	1.3	100.0	1,481	2.93	2.69
40-44	5.3	5.6	28.5	23.3	13.6	8.7	6.1	2.8	2.2	1.3	2.5	100.0	1,371	3.44	3.11
45-49	4.3	5.8	25.2	21.7	16.5	10.1	5.5	3.7	2.1	1.6	3.7	100.0	1,089	3.67	3.23
Total	36.1	13.4	21.1	13.1	7.0	3.7	2.1	1.3	0.8	0.5	0.8	100.0	11,517	1.84	1.69
CURRENTLY MARRIED WOMEN															
15-19	51.5	40.8	5.5	1.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	237	0.59	0.56
20-24	23.4	44.9	23.2	6.2	1.7	0.6	0.0	0.0	0.0	0.0	0.0	100.0	1,019	1.20	1.15
25-29	9.4	29.6	36.5	14.2	5.7	2.7	0.7	0.5	0.2	0.0	0.0	100.0	1,435	1.95	1.87
30-34	4.9	15.1	36.1	22.8	10.4	4.0	2.6	2.6	1.1	0.8	0.2	100.0	1,423	2.65	2.49
35-39	3.8	8.4	32.2	25.0	13.9	6.5	3.8	2.4	0.4	1.1	1.4	100.0	1,333	3.13	3.88
40-44	2.3	4.7	29.2	24.8	14.4	9.4	5.8	3.1	5.0	1.4	2.6	100.0	1,223	3.59	3.25
45-49	2.6	5.6	25.8	22.4	16.5	10.4	5.7	3.7	4.9	1.7	3.5	100.0	1,001	3.75	3.30
Total	8.7	18.5	30.4	19.0	10.1	5.3	3.0	1.9	1.9	0.8	1.2	100.0	7,671	2.64	2.43

Table 4.6 shows that on the average a woman in Turkey has given birth to 1.84 children. Out of that number, 1.69 children are still alive, indicating that 6 percent of the children ever born to TDHS-2003 respondents have died. The number of children that women have borne increases directly with age, reflecting the natural family-building process. Women age 45-49, who are approaching the end of their childbearing period, have had an average of 3.8 births. Reflecting the high levels of fertility prevailing during the 30-year period when those women were bearing children, approximately 4 percent of women in the cohort have had 10 or more births. As expected, the proportion surviving declines with increasing age of mother. Among women age 45-49, the mean number of children ever born is almost a half child greater than the mean number of surviving children.

The percentage of women in their forties who have never had children provides an indicator of the level of primary infertility –the proportion of women who are unable to bear children at all. Since voluntary childlessness is rare in Turkey, it is likely that married women with no birth are unable to bear children. The TDHS-2003 results suggest that primary fertility is low; less than 3 percent of married women age 45-49 report that they have had no children.

#### **4.5 Birth Intervals**

A birth interval is the period between two successive live births. Research has shown that children born soon after a previous birth (i.e., within 24 months) are at greater risk of illness and death than those born after a longer interval. In addition, short birth intervals may have consequences for other children in the family. The occurrence of closely spaced births gives the mother insufficient time to restore her health, which may limit her ability to take care of her children. The duration of breastfeeding for the older child may also be shortened if the mother becomes pregnant.

Table 4.7 shows the percent distribution of non-first births in the five years preceding the survey by length of the previous birth interval. Birth intervals are relatively long, with about three-quarters of all non-first births occurring at least two years after the previous birth. Approximately a half of births took place at least three years after a prior birth. The median interval is approximately 36 months, which is about a year longer than the minimum interval considered safe. Although the majority of non-first births are appropriately spaced, 27 percent were born too soon after a prior birth, i.e., within 24 months of a previous birth.

Younger women have shorter birth intervals than older women. The median interval varies from 23 months among the small number of births to women age 15-19 to 45 months among births to women age 30-39. Birth intervals vary significantly with the child's birth order. The lowest birth orders (2-3 births) show the least likelihood of being born soon after the previous birth. Birth intervals are markedly different depending on the survival status of the prior birth; the average interval is about 8 months longer in cases where the prior birth is alive than when that child has died (36 months and 28 months, respectively).



Table 4.7 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since previous birth, according to demographic and socioeconomic characteristics, Turkey 2003

Background characteristic	Number of months since previous birth					Total	Number of births	Median number of months since previous birth
	7-17	18-23	24-35	36-47	48+			
<b>Age of mother</b>								
15-19	(32.0)	(28.8)	(35.7)	(3.5)	(0.0)	100.0	23	22.8
20-29	16.8	17.6	27.7	13.7	24.3	100.0	1,333	30.2
30-39	9.0	9.9	19.9	13.2	48.0	100.0	1,194	44.6
40+	9.8	7.9	16.6	10.7	55.1	100.0	169	56.1
<b>Birth order</b>								
2-3	12.5	12.3	22.0	13.6	39.6	100.0	1,780	38.8
4-6	13.7	15.4	24.0	12.6	34.2	100.0	656	33.0
7+	15.6	18.6	33.2	11.5	21.2	100.0	283	28.0
<b>Sex of prior birth</b>								
Male	13.7	13.7	22.2	13.6	36.8	100.0	1,352	36.2
Female	12.4	13.7	25.1	12.7	36.0	100.0	1,368	35.4
<b>Survival of prior birth</b>								
Living	12.1	13.6	23.9	13.1	37.3	100.0	2,565	36.2
Dead	29.0	15.5	19.5	14.8	21.2	100.0	154	27.6
<b>Residence</b>								
Urban	11.2	12.1	22.6	12.9	41.1	100.0	1,704	39.4
Rural	16.2	16.3	25.3	13.6	28.5	100.0	1,016	31.4
<b>Region</b>								
West	9.5	12.1	20.1	10.5	47.8	100.0	782	45.0
South	12.8	10.1	24.6	14.8	37.7	100.0	362	38.0
Central	11.3	12.0	18.9	13.2	44.5	100.0	497	41.2
North	12.3	12.9	22.1	14.7	38.1	100.0	175	37.8
East	17.5	17.5	29.2	14.5	21.3	100.0	903	29.3
<b>NUTS 1 Region</b>								
Istanbul	6.8	10.7	24.2	11.0	47.3	100.0	362	45.0
West Marmara	5.9	8.3	16.5	11.9	57.5	100.0	67	56.3
Aegean	13.8	11.1	12.3	9.3	53.6	100.0	215	50.4
East Marmara	14.4	18.1	18.8	12.7	36	100.0	202	34.4
West Anatolia	9.0	10.8	22.2	13.1	44.8	100.0	231	42.4
Mediterranean	12.8	10.1	24.6	14.8	37.7	100.0	362	38.0
Central Anatolia	10.3	12.4	19.8	11.6	46	100.0	149	41.6
West Black Sea	14.7	10.9	20.2	11.1	43	100.0	132	39.3
East Black Sea	9.1	15.5	20.4	18.4	36.6	100.0	96	39.0
Northeast Anatolia	16.3	15.4	24.4	15.6	28.3	100.0	142	32.4
Central East Anatolia	18.0	19.2	26.4	11.4	25	100.0	233	29.0
Southeast Anatolia	17.6	17.4	31.7	15.6	17.7	100.0	529	28.6
<b>Education</b>								
No educ./Prim. inc.	18.4	18.0	29.5	12.8	21.3	100.0	925	28.0
First level primary	11.3	12.2	21.7	12.6	42.2	100.0	1,389	39.7
Second level primary	3.9	9.2	19.2	16.3	51.4	100.0	151	48.7
High school and higher	8.6	9.1	15.5	15.7	51.1	100.0	254	48.6
Total	13.1	13.7	23.6	13.2	36.4	100.0	2,720	35.8

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases.

As Table 4.7 shows, the median birth interval in urban areas is 39 months, compared with 31 months in rural areas. There is 16-month difference between women in the western part of Turkey, who have the longest birth interval, and those in the eastern part of Turkey who have the shortest birth interval (45 months and 29 months respectively). Consistent with this finding, in all the NUTS 1 regions of the eastern part of Turkey, the median birth interval is nearly 30 months. There exists a clear association between the woman's educational level and the average birth interval. The median birth interval is slightly over four years for women with high school or higher education as opposed to just over than the interval considered minimum safe for women with no education.

#### 4.6. Age at First Birth

The age at which childbearing begins has important demographic consequences for society as a whole as well as for the health and welfare of mother and child. In many countries, postponement of first births has contributed greatly to overall fertility decline.

Table 4.8 presents the distribution of women by age at first birth, according to their current age. For women under age 25 the median age at first birth is not shown because less than 50 percent of women in those ages had given birth at the time of the survey. The results in Table 4.8 suggest that there has been a steady rise in the age at first birth among women in Turkey. Women in younger cohorts are much less likely than older women to have given birth to their first child while they were in their teens. For example, among women age 45-49, 38 percent had become a mother before age 20, while only 28 percent of women age 25-29 had given birth to their first child before age 20. Overall, Table 4.8 shows that the median age at first birth ranges from a low of 21 years among women age 45-49 to 23 years among women age 25-29. These cohort changes that parallel with the increase in the median age at first marriage took place during the same period (see Chapter 7).

Current age	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19	0.2	NA	NA	NA	NA	94.3	2,003	a
20-24	0.4	7.8	21.1	NA	NA	61.8	2,101	a
25-29	1.0	12.2	27.5	42.9	63.5	27.9	1,849	22.9
30-34	0.9	13.5	30.0	50.0	69.9	13.4	1,622	22.0
35-39	1.4	14.0	32.2	52.1	71.7	8.3	1,481	21.7
40-44	2.7	19.7	39.7	58.9	79.3	5.3	1,371	20.9
45-49	2.2	17.3	37.5	59.1	79.4	4.3	1,089	21.1

NA = Not applicable  
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 4.9 presents trends in the median age at first birth across age cohorts for key sub-groups. The measures are presented for women age 25-49 years to ensure that half of the

women have already had a birth. Overall, the median age at first birth is approximately 22 years for women 25-49. However, there are wide differences in the age at which women first gave birth among the various sub-groups. Urban women started childbearing one year later than their rural counterparts. On average, women in Eastern region had their first birth one and a half years earlier than women in the West region. Looking at the patterns by education within age groups, highly educated women had their first birth about two years later than women with less than a primary education.

Background characteristic	Current age					All women age 25-49
	25-29	30-34	35-39	40-44	45-49	
<b>Residence</b>						
Urban	23.2	22.2	22.1	21.1	21.4	22.1
Rural	22.2	21.7	21.0	20.6	20.4	21.1
<b>Region</b>						
West	23.3	22.3	22.3	21.4	21.4	22.2
South	23.0	22.3	22.9	22.2	22.2	22.4
Central	22.7	21.8	20.8	20.5	20.5	21.2
North	23.4	22.5	22.4	20.9	20.9	22.2
East	22.0	21.0	20.4	19.9	19.9	20.8
<b>NUTS 1 Region</b>						
Istanbul	23.5	22.8	22.0	21.0	21.5	22.3
West Marmara	24.0	22.0	21.5	21.8	21.0	22.0
Aegean	23.7	22.4	22.3	21.2	20.8	22.1
East Marmara	22.4	21.7	22.2	20.6	21.5	21.7
West Anatolia	23.0	21.7	21.5	22.1	21.2	22.0
Mediterranean	23.0	22.3	22.9	21.6	22.2	22.4
Central Anatolia	22.0	21.6	20.4	19.8	21.2	20.6
West Black Sea	22.7	22.6	22.0	21.5	20.2	21.8
East Black Sea	23.4	22.4	21.5	21.0	20.9	21.9
Northeast Anatolia	21.8	21.0	21.0	20.9	20.4	21.1
Central East Anatolia	22.7	21.4	19.9	20.4	20.1	20.9
Southeast Anatolia	21.7	20.7	20.4	19.5	19.2	20.6
<b>Education</b>						
No educ./Pri. incomp.	20.4	20.3	20.6	20.2	20.2	20.1
First level primary	21.6	21.4	21.1	20.9	20.9	20.2
Second level primary	22.2	22.8	22.3	22.1	22.1	22.3
High school and higher	a	26.9	25.3	24.5	24.5	a
Total	22.9	21.9	21.7	20.9	21.1	21.8

Note: The medians for cohorts 15-19 and 20-24 could not be determined because some women may still have a birth before reaching age 20 or 25, respectively.

<sup>a</sup>Median ages at first birth for women with high school and higher education in the age groups 25-29 and 25-49 cannot be calculated because less than half of these women had a first birth before age 25.

## 4.7 Teenage Pregnancy and Motherhood

Teenage fertility is a major health concern because teenage mothers and their children are at high risk of illness and death. Childbearing during the teenage years also frequently has adverse social consequences, particularly on female educational attainment since women who become mothers in their teens are more likely to curtail education.

Using information from the TDHS-2003, Table 4.10 shows the percentage of women age 15-19 who are mothers or who are pregnant with their first child. The overall level of teenage childbearing is approximately 8 percent, of which 6 percent already have given birth and 2 percent are pregnant with their first child. This percentage is slightly lower than that recorded in the TDHS-1998 when the proportion of teenagers who had begun childbearing was 10 percent.

Table 4.10 shows that the proportion of women who have begun childbearing rises rapidly throughout the teenage years, from 1 percent among 16-year-olds to 3 percent among 17-year-olds, 8 percent among 18-year-olds, and 17 percent among 19-year-olds. There is no clear association between teenage childbearing and urban-rural residence. In terms of region, East region has the highest level of teenage childbearing (9 percent), while the North region has the lowest (3 percent). Surprisingly, Aegean region has the highest level of teenage childbearing with 13 percent. The level of teenage fertility is strongly associated with women's educational level. The proportion of women age 15-19 who are pregnant or who have already given birth decreases from about 15 percent among women with less than primary education to 3 percent among women with at least high school education.

**Table 4.10 Teenage pregnancy and motherhood**

Percentage of teenagers 15-19 who are mothers or pregnant with their first child, by background characteristics, Turkey 2003

Background characteristic	Percentage who are:		Percentage who have begun childbearing	Number of teenagers
	Mothers	Pregnant with first child		
<b>Age</b>				
15	0.0	0.2	0.2	388
16	0.9	0.4	1.3	425
17	3.5	1.8	5.3	410
18	8.2	3.2	11.4	412
19	17.2	3.5	20.7	368
<b>Residence</b>				
Urban	5.6	2.0	7.7	1,302
Rural	5.9	1.3	7.2	712
<b>Region</b>				
West	5.7	1.4	7.1	572
South	6.6	1.3	7.9	286
Central	6.1	1.4	7.5	501
North	2.0	0.7	2.7	147
East	6.0	3.1	9.1	505
<b>NUTS 1 Region</b>				
Istanbul	5.2	2.3	7.5	262
West Marmara	5.8	0.0	5.8	61
Aegean	11.5	1.2	12.7	195
East Marmara	2.8	0.9	3.7	166
West Anatolia	4.9	1.6	6.4	209
Mediterranean	6.6	1.3	7.9	286
Central Anatolia	4.0	0.6	4.7	129
West Black Sea	4.6	2.1	6.8	127
East Black Sea	0.5	0.0	0.5	75
Northeast Anatolia	3.8	2.3	6.1	98
Central East Anatolia	6.5	3.0	9.4	139
Southeast Anatolia	6.6	3.5	10.1	270
<b>Education</b>				
No educ./Pri. incomp.	10.6	3.9	14.5	302
First level primary	11.4	2.5	13.9	559
Second level primary	1.6	0.7	2.3	888
High school and higher	1.6	1.4	3.0	313
<b>Total</b>	<b>5.7</b>	<b>1.8</b>	<b>7.5</b>	<b>2,003</b>

Note: The sum of the absolute values does not add up to the total value in the last four variables due to use of the ever-married factors.

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This chapter presents TDHS-2003 results relative to contraceptive knowledge, attitudes, and use. The chapter begins with an appraisal of the knowledge of different contraceptive methods before moving on to a consideration of past and current practice. For users of periodic abstinence and all ever-married women, knowledge of the ovulatory cycle is examined. For those relying on sterilization, the timing of method adoption is reviewed as well. Special attention is focused on source of contraception, informed choice, nonuse, reasons for discontinuation, and intention to use in the future.

### **5.1 Knowledge of Family Planning Methods**

Awareness of family planning methods is crucial in decisions on whether to use a contraceptive method and which method to use. Acquiring knowledge about fertility control is an important step toward gaining access to and then using a suitable contraceptive method in a timely and effective manner. To obtain data on contraceptive knowledge, TDHS-2003 respondents were first asked to name the means or methods by which couples could delay or avoid pregnancy. If the respondent failed to mention any of the methods listed in the questionnaire, the interviewer described the method and asked whether the respondent recognized it. Using this approach, information was collected for modern and traditional methods. Other traditional or ‘folkloric’ methods mentioned by the respondent were also recorded. No questions were asked to elicit information on depth of knowledge of these methods (e.g., on the respondent’s understanding of how to use a specific method). Therefore, in the analyses that follows, knowledge of a family planning method is defined simply as having heard of a method.

Table 5.1 shows the level of knowledge of contraceptive methods among ever-married women and currently married women by specific method. Knowledge of at least one family planning method is almost universal among ever-married women and among currently married women. Almost all women interviewed in the survey know about at least one modern method. The most widely known modern contraceptive methods among ever-married women are the IUD (98 percent), the pill (98 percent), male condom (90 percent), female sterilization (90 percent), and injectables (82 percent) while the least known methods are female condom (14 percent) and emergency contraception (16 percent). Similarly, the most widely known modern contraceptive methods among currently married women are IUD (98 percent), the pill (98 percent), male condom (90 percent), female sterilization (90 percent), and injectables (83 percent) while the least known methods are female condom (13 percent) and emergency contraception (16 percent). Among traditional methods, withdrawal method is the most widely recognized one (94 percent for both ever-married and currently married women). The mean number of methods known is a rough indicator of the extent of knowledge of family

planning methods. On average, each ever-married woman and currently married woman know 8.5 methods.

Method	Ever-married women	Currently married women
<b>Any method</b>	99.7	99.8
<b>Any modern method</b>	99.5	99.5
Female sterilization	89.7	89.8
Male sterilization	40.2	40.2
Pill	97.8	97.8
IUD	98.2	98.3
Injectables	82.1	82.5
Implants	43.0	43.3
Male condom	89.7	90.0
Female condom	13.5	13.4
Diaphragm	45.6	45.7
Emergency contraception	16.2	16.1
<b>Any traditional method</b>	97.7	97.7
Periodic abstinence	49.7	49.7
Withdrawal	93.7	93.9
Lactational amenorrhea method (LAM)	84.1	84.3
Folk method	8.2	8.1
Mean number of methods known	8.5	8.5
Number of women	8,075	7,672

Table 5.2 shows the percentage of currently married women who know any method of contraception and any modern method by background characteristics. Knowledge of any method and of any modern method is almost universal in all subgroups of background characteristics ranging from 98 to 100 percent.

Table 5.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women who know at least one contraceptive method and who know at least one modern method, by background characteristics, Turkey 2003

Background characteristic	Knows any method	Knows any modern method <sup>1</sup>	Number of women
<b>Age</b>			
15-19	98.4	98.0	237
20-24	99.8	99.5	1,019
25-29	99.9	99.8	1,435
30-34	99.9	99.9	1,423
35-39	99.6	99.6	1,333
40-44	99.8	99.2	1,223
45-49	99.8	99.3	1,001
<b>Residence</b>			
Urban	99.9	99.7	5,437
Rural	99.5	99.0	2,235
<b>Region</b>			
West	99.9	99.6	3,106
South	99.7	99.5	981
Central	99.6	99.4	1,770
North	99.8	99.8	561
East	99.7	99.3	1,253
<b>NUTS 1 Region</b>			
Istanbul	99.9	99.9	1,405
West Marmara	99.8	99.1	329
Aegean	99.5	98.6	1,079
East Marmara	100.0	100.0	669
West Anatolia	100.0	100.0	742
Mediterranean	99.7	99.5	981
Central Anatolia	99.6	99.4	446
West Black Sea	100.0	100.0	492
East Black Sea	99.6	99.6	275
Northeast Anatolia	99.9	99.5	234
Central East Anatolia	99.5	98.5	378
Southeast Anatolia	99.7	99.6	642
<b>Education</b>			
No education/Primary incomplete	99.1	98.2	1,664
First level primary	100.0	99.9	4,158
Second level primary	100.0	100.0	570
High school and higher	100.0	99.9	1,280
Total	99.8	99.5	7,672

<sup>1</sup>Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, diaphragm, and emergency contraception



## 5.2 Ever Use of Family Planning Methods

The TDHS-2003 collected data on the level of ever use of family planning methods, which is defined as the use of a contraceptive method at any time during a woman's reproductive years. To obtain these data, respondents were asked if they had ever used for each of the methods that they knew.

Table 5.3 shows the percentages of ever-married and currently married women who have ever used any contraceptive method by specific method and age. Overall, the results indicate that 90 percent of both ever-married and currently married women have used a family planning method at some time. Across age groups, the lowest level of ever use of any family planning method is observed among ever-married and currently married women age 15-19, while after age 25 the percentages are around or above 90 percent.

Table 5.3 Ever use of contraception

Percentage of ever-married women and of currently married women who have ever used any contraceptive method, by specific method and age, Turkey 2003

Current age	Modern method											Traditional method				Number of women		
	Any	Any modern	Female ster.	Male ster.	Pill	IUD	Inject-ables	Im-plants	Male condom	Female condom	Dia-phragm	Emer-gency contra-ception	Any tradi-tional	Perio-dic absti-nence	With-draw-al		LAM	Folk
EVER-MARRIED WOMEN																		
15-19	65.0	33.7	0.0	0.0	12.8	8.1	3.6	0.0	20.9	0.0	1.3	0.0	56.9	6.0	54.2	9.3	1.4	238
20-24	82.6	56.7	0.4	0.0	17.0	22.7	4.0	0.2	36.9	0.0	1.6	0.0	66.8	5.8	61.2	11.5	1.0	1,045
25-29	90.8	73.0	2.4	0.0	31.4	38.4	6.9	0.1	42.6	0.0	2.8	0.5	71.8	8.1	65.6	13.5	1.0	1,480
30-34	92.9	79.1	6.1	0.0	35.9	49.4	5.9	0.0	44.5	0.2	4.3	0.6	71.4	7.8	64.8	15.7	1.4	1,489
35-39	91.6	79.0	7.9	0.1	38.9	51.3	4.9	0.0	41.2	0.1	8.2	0.6	70.1	10.9	62.0	16.9	1.9	1,420
40-44	92.8	77.9	10.4	0.1	42.6	50.9	4.6	0.1	31.9	0.0	7.8	1.2	70.0	9.7	61.1	18.9	3.1	1,330
45-49	88.9	74.8	6.4	0.3	45.1	45.6	4.3	0.0	29.4	0.1	10.2	0.7	67.7	12.1	56.7	19.4	4.6	1,073
Total	89.6	73.0	5.6	0.1	34.8	42.8	5.2	0.1	37.8	0.1	5.7	0.6	69.5	9.0	62.0	15.8	2.1	8,075
CURRENTLY MARRIED WOMEN																		
15-19	65.0	33.8	0.0	0.0	12.8	8.1	3.6	0.0	21.0	0.0	1.3	0.0	56.8	6.0	54.1	9.3	1.4	237
20-24	82.6	56.6	0.4	0.0	16.8	22.8	3.9	0.2	37.0	0.0	1.6	0.0	67.2	5.7	62.1	11.4	1.1	1,019
25-29	91.3	73.6	2.4	0.0	31.7	38.6	7.1	0.1	43.2	0.0	2.9	0.5	72.2	8.2	66.0	13.7	0.9	1,435
30-34	93.7	79.7	6.2	0.0	35.6	50.2	5.8	0.0	45.1	0.3	4.4	0.5	72.5	7.7	65.8	15.9	1.4	1,423
35-39	92.0	79.3	8.3	0.1	38.5	51.8	5.1	0.0	41.8	0.1	7.9	0.5	71.2	10.6	63.3	17.3	2.0	1,333
40-44	93.4	78.1	10.9	0.1	42.5	50.8	4.6	0.1	32.6	0.0	8.2	1.2	70.6	9.4	62.4	18.9	3.2	1,223
45-49	89.8	75.3	6.5	0.3	45.5	46.1	4.3	0.0	30.1	0.1	9.9	0.7	69.4	12.4	58.3	19.5	4.3	1,001
Total	90.0	73.2	5.7	0.1	34.6	42.9	5.2	0.1	38.4	0.1	5.6	0.6	70.3	8.9	63.0	15.9	2.0	7,672

LAM = Lactational amenorrhea method

More than 60 percent of women report ever use of withdrawal. Among modern method users of ever-married and currently married women, the IUD is the most commonly adopted (43 percent) followed by the male condom and pill (35 and 38 percent respectively). Experience using LAM (Lactational Amenorrhea Method) is reported by nearly 16 percent of women. Results related with LAM may be interpreted with caution since women may be confusing the method with traditional breastfeeding practices, despite the fact that the stress was made in the questionnaire to prevent such a confusion.

### 5.3 Current Use of Contraception

The data on the current use of family planning is among the most important information collected in the TDHS-2003 since it provides insight into one of the principal determinants of fertility and serves as a key measure for assessing the success of the national family planning program.

Table 5.4 shows the percent distribution of currently married women by current use of specific family planning methods according to age. Overall, 71 percent of currently married women are using contraception, with 43 percent depending on modern methods and 29 percent using traditional methods. The most widely used method is withdrawal (26 percent). Among modern methods, IUD is the most widely used method (20 percent) followed by male condom (11 percent). The use of contraceptive methods varies by age. Current use of any method is lower among currently married women age 15-19 (44 percent), rising to as high as 81 percent among currently married women in the 30-34 age group, and then dropping to 50 percent among currently married women age 45-49. The use of withdrawal peaks among women in the 40-44 age group (50 percent) while the highest level of IUD use (26 percent) is found among women age 30-34.

Table 5.4 Current use of contraception

Percent distribution of currently married women by contraceptive method currently used, according to age, Turkey 2003

Current age	Any		Modern methods							Any traditional	Traditional methods				Not currently using	Total	Number of women
	Any	modern	Female ster.	Male ster.	Pill	IUD	In-ject-ables	Male con-dom	Dia-phragm		Perio-dic absti-nence	With-draw al	LAM	Folk			
15-19	44.3	16.9	0.0	0.0	4.0	6.2	0.3	6.4	0.0	27.5	1.8	24.8	0.8	0.0	55.7	100.0	237
20-24	59.2	31.4	0.4	0.0	5.0	15.8	0.7	9.2	0.4	27.9	0.6	25.7	1.5	0.1	40.8	100.0	1,019
25-29	74.8	47.2	2.4	0.0	7.4	23.1	0.4	13.4	0.5	27.6	0.7	25.7	0.9	0.2	25.2	100.0	1,435
30-34	80.9	51.6	6.2	0.0	5.9	25.6	0.5	13.0	0.5	29.3	0.8	27.7	0.6	0.2	19.1	100.0	1,423
35-39	80.7	51.2	8.3	0.1	4.3	25.1	0.6	12.0	0.9	29.4	1.0	27.8	0.3	0.4	19.3	100.0	1,333
40-44	76.4	44.6	10.9	0.1	3.3	19.2	0.1	10.0	1.0	31.8	1.6	29.5	0.1	0.6	23.6	100.0	1,223
45-49	49.9	25.8	6.5	0.3	1.3	11.1	0.0	5.7	0.9	24.2	2.1	20.9	0.0	1.2	50.1	100.0	1,001
Total	71.0	42.5	5.7	0.1	4.7	20.2	0.4	10.8	0.6	28.5	1.1	26.4	0.6	0.4	29.0	100.0	7,672

Note: If more than one method is used, only the most effective method is considered in this tabulation.  
LAM = Lactational amenorrhea method

Table 5.5 shows that the current use of contraceptive methods varies according to residence, region, level of education, and number of living children. Currently married women living in urban areas are more likely to be using any contraceptive method than women in rural areas (74 percent and 65 percent respectively). Current use is lowest in the East (58 percent) and highest in the West and the Center (74 percent). With regard to NUTS 1 regions, current use is lowest in the Southeast Anatolia (56 percent) and highest in West Anatolia (79 percent).

Table 5.5 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Turkey 2003

Background characteristic	Modern method										Traditional method				Not currently using	Total	Number of women
	Any	Any modern	Female ster.	Male ster.	Pill	IUD	In-ject-ables	Male con-dom	Dia-phragm	Any tradi-tional	Perio-dic absti-nence	With-draw-al	LAM	Folk			
<b>Residence</b>																	
Urban	73.6	45.8	5.9	0.1	5.0	21.5	0.4	12.1	0.8	27.8	1.2	25.7	0.5	0.4	26.4	100.0	5,437
Rural	64.5	34.4	5.1	0.0	3.9	17.2	0.3	7.4	0.4	30.1	0.8	28.1	0.9	0.3	35.5	100.0	2,235
<b>Region</b>																	
West	74.2	45.7	6.1	0.1	4.8	21.0	0.2	12.7	0.8	28.6	1.2	26.6	0.2	0.6	25.8	100.0	3,106
South	70.8	44.8	6.1	0.1	3.9	21.9	0.5	11.3	1.0	26.0	1.4	23.6	0.8	0.2	29.2	100.0	981
Central	74.2	46.6	5.0	0.0	5.3	25.2	0.4	10.2	0.5	27.6	1.2	25.7	0.4	0.3	25.8	100.0	1,770
North	71.9	32.5	9.4	0.0	3.1	10.8	0.0	8.3	0.8	39.4	1.5	37.5	0.2	0.2	28.1	100.0	561
East	57.9	31.4	3.7	0.0	4.9	14.3	1.0	7.4	0.2	26.5	0.5	24.0	1.8	0.3	42.1	100.0	1,253
<b>NUTS 1 Region</b>																	
İstanbul	76.1	45.9	6.0	0.0	5.5	21.6	0.2	11.9	0.7	30.2	1.5	27.8	0.3	0.7	23.9	100.0	1,405
West Marmara	77.9	43.6	5.9	0.0	3.2	19.7	0.2	13.9	0.7	34.3	1.7	31.0	0.8	0.8	22.1	100.0	329
Aegean	70.2	45.0	5.6	0.3	5.1	20.5	0.0	12.9	0.7	25.2	0.7	24.0	0.2	0.3	29.8	100.0	1,079
East Marmara	72.0	45.4	6.0	0.1	5.7	21.4	0.3	11.0	0.9	26.6	0.4	25.2	0.2	0.8	28.0	100.0	669
West Anatolia	79.3	51.4	4.9	0.0	4.8	27.6	0.7	12.5	0.8	28.0	1.8	25.7	0.5	0.0	20.7	100.0	742
Mediterranean	70.8	44.8	6.1	0.1	3.9	21.9	0.5	11.3	1.0	26.0	1.4	23.6	0.8	0.2	29.2	100.0	981
Central Anatolia	72.1	46.3	5.8	0.0	4.8	26.2	0.0	9.2	0.3	25.8	1.3	24.0	0.3	0.3	27.9	100.0	446
West Black Sea	71.8	38.1	9.7	0.0	3.7	15.7	0.2	8.0	0.8	33.7	0.6	32.4	0.2	0.5	28.2	100.0	492
East Black Sea	70.7	26.2	5.7	0.0	2.2	9.2	0.0	8.5	0.6	44.5	2.3	41.9	0.0	0.3	29.3	100.0	275
Northeast Anatolia	64.5	34.1	3.3	0.0	4.7	17.1	1.7	7.0	0.3	30.4	0.8	26.1	2.0	1.4	35.5	100.0	234
Central East Anatolia	57.2	31.8	3.1	0.0	5.5	15.5	0.5	7.0	0.2	25.3	0.3	24.8	0.2	0.0	42.8	100.0	378
Southeast Anatolia	55.9	30.1	4.1	0.0	4.6	12.5	0.9	7.9	0.1	25.9	0.5	22.7	2.6	0.0	44.1	100.0	642
<b>Education</b>																	
No educ. /Prim. inc.	56.7	29.9	6.5	0.0	3.9	13.4	0.7	4.5	0.8	26.9	0.4	24.8	1.1	0.6	43.3	100.0	1,664
First level primary	74.7	43.4	5.9	0.1	4.1	22.5	0.3	9.7	0.7	31.3	1.0	29.3	0.6	0.4	25.3	100.0	4,158
Secondary level																	
primary	77.4	50.8	4.8	0.3	7.3	25.2	0.0	13.0	0.3	26.5	0.3	25.6	0.4	0.2	22.6	100.0	570
High school and higher	74.5	52.2	4.1	0.1	6.5	19.4	0.3	21.3	0.5	22.4	2.9	19.3	0.1	0.1	25.5	100.0	1,280
<b>Number of living children</b>																	
0	18.2	8.5	0.2	0.0	2.7	0.3	0.2	5.0	0.0	9.7	0.8	8.9	0.0	0.0	81.8	100.0	680
1-2	77.7	46.8	3.2	0.0	5.8	22.6	0.3	14.4	0.6	30.8	1.4	28.6	0.5	0.2	22.3	100.0	4,006
3-4	77.9	46.9	9.9	0.1	3.8	23.5	0.2	8.1	1.2	31.0	0.9	28.7	0.8	0.6	22.1	100.0	2,227
5+	62.4	36.8	11.5	0.1	3.6	15.8	1.1	4.7	0.1	25.6	0.3	23.5	0.8	1.0	37.6	100.0	759
Total	71.0	42.5	5.7	0.1	4.7	20.2	0.4	10.8	0.6	28.5	1.1	26.4	0.6	0.4	29.0	100.0	7,672

Note: If more than one method is used, only the most effective method is considered in this tabulation.  
LAM = Lactational amenorrhea method

The level of current use of family planning increases significantly with education from 57 percent among women who never attended school or not complete the first level of primary school to 75 percent among women at the first level of primary school, and remains above 70 percent at higher educational levels. Contraceptive use is also associated with the number of living children a woman has. Eighteen percent of currently married women with no children use family planning for postponing purposes. Use levels increase to 78 percent for women with one or two and three or four children, then drop off to 62 percent for women with five or more children.

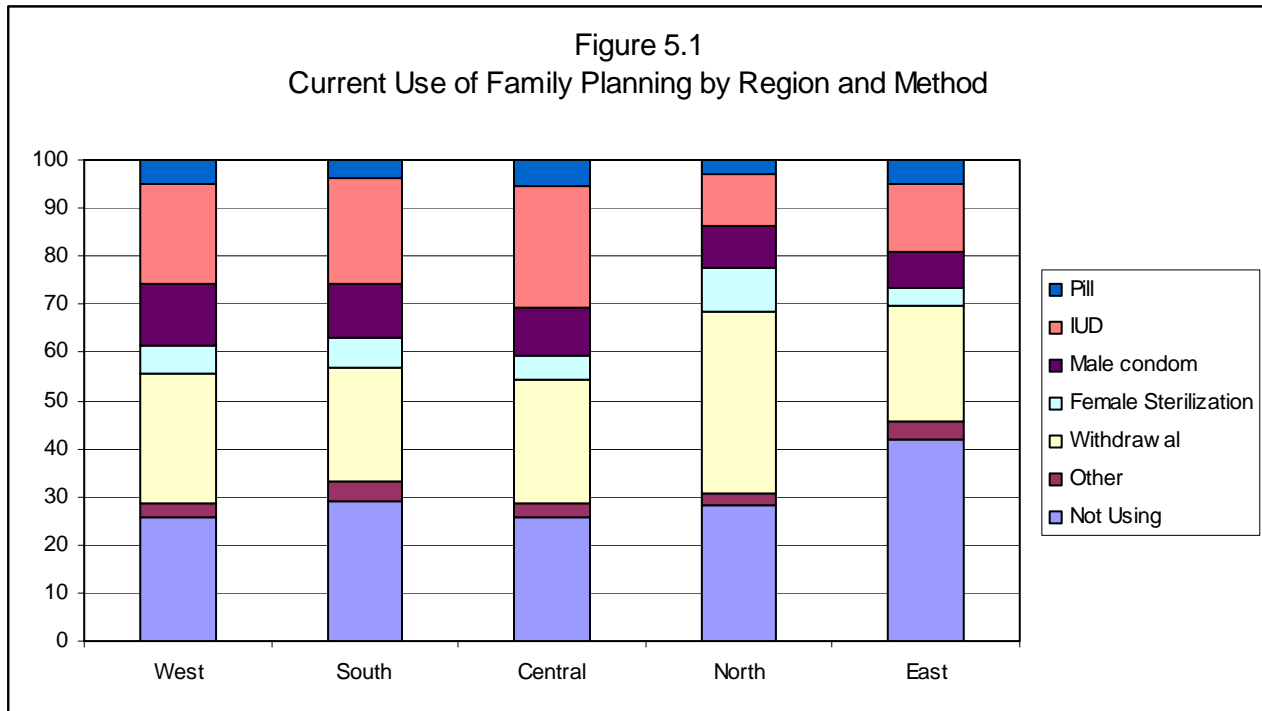


Figure 5.1 shows the most commonly used methods by region. Withdrawal use rates range from 24 percent in the South to 38 percent in the North. For the pill and IUD, the lowest rates are in the North and the highest rates are in the Center. Use of male condom, on the other hand, is lowest in the East and highest in the West. Female sterilization is most common in the North and least common in the East.

#### 5.4 Trends in Current Use of Family Planning

The results from the TDHS-2003, as well as those from earlier demographic surveys, can be used to examine the changes that have taken place in the level and pattern of contraceptive use in Turkey over the past 15 years. Table 5.6 highlights the trend in family planning use at the national level between 1988 and 2003. The data show that contraceptive use in Turkey increased significantly in the last survey after staying at around 63 percent for the prior three surveys. The use of modern methods has increased over the last 15 years, from 31 percent in 1988 to 43 percent in 2003. With respect to specific methods, use of IUD, female sterilization, and male condom all rose over this period, while use of withdrawal remained at the same level.

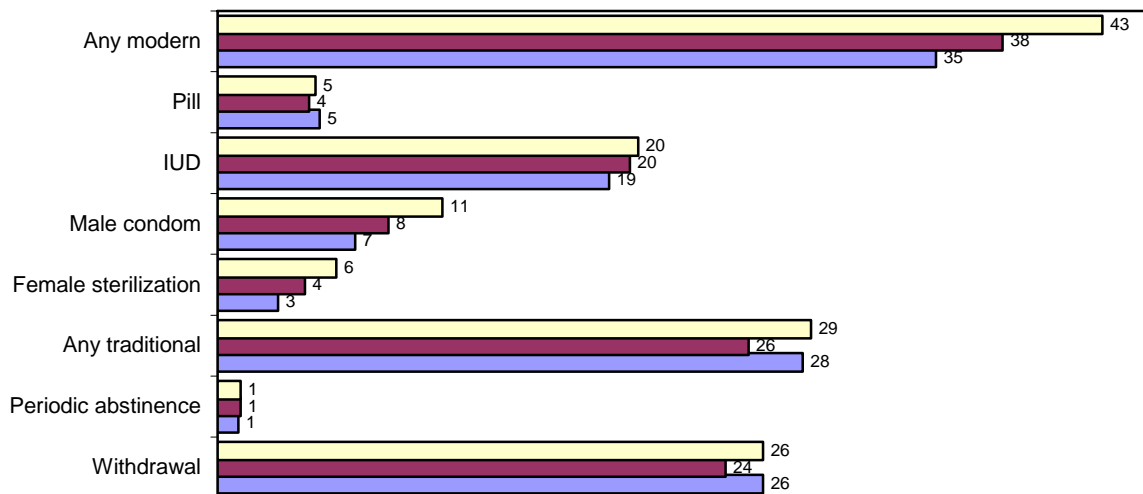
Figure 5.2 also highlights the trend in family planning use for selected methods between 1993 and 2003. These data also indicate that although the level of traditional method use remained almost unchanged, there was significant change in the level of use of modern methods since 1993 from 35 percent in 1993 to 43 percent in 2003. The pace of the change in modern method use was particularly rapid in the last five years preceding the TDHS-2003. Most of the increase during the period is due to greater rates of use of female sterilization and male condom.

Table 5.6 Trends in current use of contraception

Percent distribution of currently married women by contraceptive method currently used, TPHS-1988, TDHS-1993, TDHS-1998, and TDHS-2003

Contraceptive method	TPHS-1988	TDHS-1993	TDHS-1998	TDHS-2003
<b>Any method</b>	63.4	62.6	63.9	71.0
<b>Any modern method</b>	31.0	34.5	37.7	42.5
Pill	6.2	4.9	4.4	4.7
IUD	14.0	18.8	19.8	20.2
Male condom	7.2	6.6	8.2	10.8
Female sterilization	1.7	2.9	4.2	5.7
Other modern methods	2.0	1.3	1.1	1.1
<b>Any traditional method</b>	32.3	28.1	26.1	28.5
Periodic abstinence	3.5	1.0	1.1	1.1
Withdrawal	25.7	26.2	24.4	26.4
Other traditional methods	3.1	0.9	0.6	1.0
<b>Not currently using</b>	36.6	37.4	36.1	29.0
Total	100.0	100.0	100.0	100.0

Figure 5.2 Current Use of Family Planning Methods, Turkey 1993, 1998, and 2003



Legend: TDHS-1993 (blue), TDHS-1998 (maroon), TDHS-2003 (yellow)

Table 5.7 shows the trend in contraceptive use by residence and region during the last 10 years. Both urban and rural areas shared in the increase in use of modern methods during this period. The regional trends are somewhat more mixed. Overall, except for the North, the use of modern methods increased in all regions from 1993 to 2003. Traditional method use increased in the North and, especially in the East, while it did not change significantly in other regions.

Residence and region	TDHS-1993			TDHS-1998			TDHS-2003		
	Any method	Any modern method	Any traditional method	Any method	Any modern method	Any traditional method	Any method	Any modern method	Any traditional method
<b>Residence</b>									
Urban	66.2	38.9	27.3	66.7	40.8	25.2	73.6	45.8	27.8
Rural	56.1	26.8	29.3	58.1	31.4	26.0	64.5	34.4	30.1
<b>Region</b>									
West	71.5	37.3	34.2	70.5	40.5	29.2	74.2	45.7	28.6
South	62.8	36.7	26.0	60.3	35.1	24.6	70.8	44.8	26.0
Center	62.7	36.6	26.1	68.3	42.8	24.7	74.2	46.6	27.6
North	64.2	29.8	34.4	67.0	35.2	31.5	71.9	32.5	39.4
East	42.3	26.3	16.0	42.0	26.7	15.2	57.9	31.4	26.5
Total	62.6	34.5	28.1	63.9	37.7	25.5	71.0	42.5	28.5

### 5.5 Number of Children at First Use of Contraception

Women who reported that they had used family planning methods at some time were asked about the number of children they had when they first used family planning. These data are useful in identifying the stage in the family-building process when women begin using family planning as well as their motivation for adopting family planning.

Table 5.8 presents the percent distribution of ever-married women who have ever used a contraceptive method by the number of living children at the time of the first use of family planning, according to current age. Overall, 24 percent of ever-married women began using contraception before they gave birth, and an additional 48 percent began after having one child. Early use of family planning is higher among younger women; half of ever-married women age 15-19 started contraceptive use before they began having children compared with 12 percent of ever-married women age 45-49. The pattern suggests that younger women are increasingly adopting family planning to delay or space births, while older women are adopting family planning to limit births.

**Table 5.8 Number of children at first use of contraception**

Percent distribution of ever-married women who have ever used contraception by number of living children at the time of first use of contraception, according to current age, Turkey 2003

Current age	Number of living children at time of first use of contraception						Total	Number of women
	0	1	2	3	4+	Missing		
15-19	49.8	46.5	3.7	0.0	0.0	0.0	100.0	155
20-24	42.0	49.8	6.2	1.5	0.4	0.2	100.0	863
25-29	35.1	50.6	8.9	3.2	1.9	0.3	100.0	1,343
30-34	25.0	52.1	13.3	4.5	4.7	0.5	100.0	1,383
35-39	17.0	46.3	21.5	7.5	7.2	0.5	100.0	1,301
40-44	14.1	45.4	17.7	11.0	1.3	0.5	100.0	1,234
45-49	12.1	43.3	22.6	9.7	12.1	0.2	100.0	955
Total	24.4	48.1	14.9	6.1	6.1	0.4	100.0	7,233

## 5.6 Knowledge of the Fertile Period

The successful use of natural family planning methods depends largely on an understanding of when during the menstrual cycle a woman is most likely to conceive. An elementary knowledge of reproductive physiology is thus the foundation for the successful practice of coitus-associated methods such as withdrawal, and especially, periodic abstinence.

To investigate women's knowledge about their fertile period, TDHS-2003 respondents were asked whether there are certain days a woman is more likely to become pregnant if she has sexual intercourse. Those who responded affirmatively to that question were asked whether this time is just before the period begins, during the period, right after the period ends, or halfway between two periods. Table 5.9 provides the results for all users of periodic abstinence and nonusers of periodic abstinence. Overall, only 27 percent of ever-married women reported the correct timing of the fertile period. Another 29 percent stated they did not know the correct timing and rest reported an incorrect timing. Among users of periodic abstinence, 63 percent reported the correct timing of the fertile period.

**Table 5.9 Knowledge of the fertile period**

Percent distribution of ever-married women by knowledge of the fertile period during the ovulatory cycle, according to current use and nonuse of periodic abstinence, Turkey 2003

Perceived fertile period	Users of periodic abstinence	Nonusers of periodic abstinence	All ever-married women
Just before her period begins	0.0	2.0	2.0
During her period	1.3	0.6	0.6
Right after her period has ended	24.3	20.9	20.9
<b>Halfway between two periods</b>	<b>63.2</b>	<b>26.2</b>	<b>26.6</b>
Other	6.1	2.7	2.7
No specific time	2.0	18	17.8
Don't know	3.1	29.6	29.3
Total	100.0	100.0	100.0
Number of women	86	7,989	8,075

## 5.7 Timing of Female Sterilization

Table 5.10 shows the distribution of sterilized women by age at the time of their sterilization, according to years since operation. The results indicate that, as in TDHS-1998, around two-thirds of ever-married women who are sterilized had the operation between age 25 and 34. The median reported age at sterilization was 31.6 years (31.8 in the TDHS-1993 and 31.7 in the TDHS-1998).

**Table 5.10 Timing of sterilization**

Percent distribution of sterilized ever-married women by age at the time of sterilization, and median age at sterilization, according to the number of years since the operation, Turkey 2003

Years since operation	Age at time of sterilization						Total	Number of women	Median age <sup>1</sup>
	<25	25-29	30-34	35-39	40-44	45-49			
<2	8.8	29.9	40.5	15.1	5.6	0.0	100.0	82	30.9
2-3	4.0	23.0	28.4	35.7	7.2	1.7	100.0	100	32.5
4-5	7.3	11.3	42.1	27.8	11.5	0.0	100.0	50	33.3
6-7	8.1	15.9	41.6	28.9	5.5	0.0	100.0	64	32.4
8-9	(13.6)	(18.1)	(46.6)	(21.7)	(0.0)	(0.0)	100.0	40	(32.0)
10+	9.7	49.7	28.6	12.0	0.0	0.0	100.0	113	a
Total	8.1	28.2	35.7	22.9	4.7	0.4	100.0	449	31.6

a = Not calculated due to censoring

<sup>1</sup>Median ages are calculated only for women sterilized at less than 40 years of age to avoid problems of censoring.

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases.

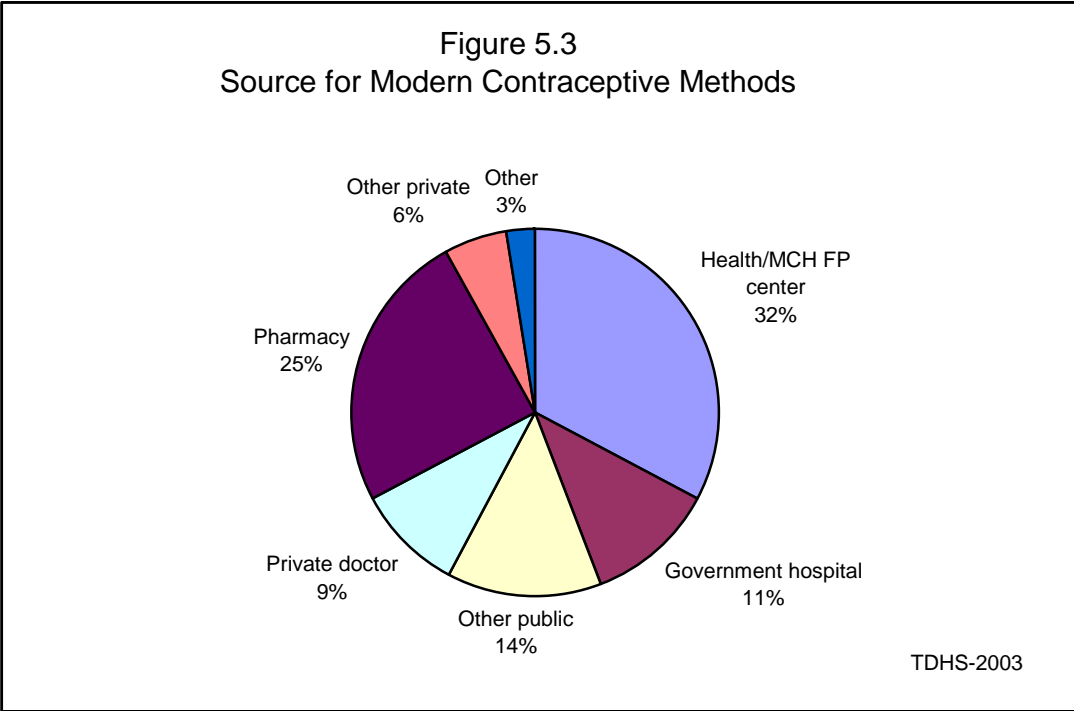


## 5.8 Sources for Family Planning Methods

Table 5.11 documents the main sources of contraception for current users. Such information of modern methods is important for family planning program managers and implementers. The public sector remains the major source of contraceptive methods in Turkey, providing methods to 58 percent of current users. The private sector provides contraception to approximately 40 percent, and 2 percent of modern method users are served by non-medical shops and markets.

Source of supply	Pill	IUD	Male condom	Female sterilization	All modern methods <sup>1</sup>
<b>Public sector</b>	30.6	71.3	34.1	82.0	57.7
Government/hospital	0.4	12.0	0.5	37.6	11.2
Maternity house	0.0	8.1	0.6	13.6	5.9
MCHFP center	3.1	8.0	2.9	0.7	5.0
Health center	23.5	37.0	29.6	0.0	27.9
Health house	1.0	0.2	0.4	0.0	0.3
SSK hospital/dispensary	1.6	5.0	0.0	23.6	5.8
University hospital	1.0	0.7	0.1	5.8	1.3
Other public	0.0	0.3	0.1	0.8	0.3
<b>Private medical</b>	67.5	27.6	59.3	16.3	39.7
Private hospital	0.0	4.2	0.0	13.9	3.9
Private polyclinic	0.0	2.5	0.0	0.4	1.3
Private doctor	1.2	18.7	0.1	1.9	9.4
Private nurse/midwife	0.0	0.4	0.0	0.0	0.2
Pharmacy	66.4	1.8	58.8	0.0	24.8
Other private medical	0.0	0.0	0.3	0.3	0.1
<b>Other private</b>	1.2	0.8	5.9	0.3	2.1
Market/shop	0.0	0.0	5.5	0.0	1.4
Friend/relatives	1.1	0.1	0.1	0.0	0.2
Traditional midwife	0.0	0.1	0.2	0.0	0.1
NGO/CSO	0.3	0.6	0.0	0.3	0.3
<b>Other</b>	0.8	0.2	0.5	0.8	0.4
Don't know/Missing	0.6	0.0	0.3	0.6	0.2
<b>Total</b>	100.0	100.0	100.0	100.0	100.0
<b>Number</b>	361	1,551	826	449	3,271

<sup>1</sup>Includes users of injectables, diaphragm, and male sterilization  
 NGO: Non-governmental organization, CSO: Civil society organization



In the public sector, 33 percent of the users obtained their modern contraceptive methods from health centers or MCHFP centers, 11 percent from government hospitals, and 6 percent from SSK hospitals. In the private medical sector, the pharmacy is the most commonly used source, providing contraceptive methods to one-fourth of all users of modern methods. Female sterilizations were conducted most commonly in government hospitals (38 percent), followed by SSK hospitals (24 percent), private hospitals (14 percent), and government maternity house (14 percent). Pills and condoms are obtained primarily from pharmacies (66 and 59 percent, respectively) and health centers (24 and 30 percent, respectively). In the case of the IUD, most users obtained the IUD from the public institutions (71 percent), and more than one in four IUD users obtained the method from a private sector provider.

Table 5.12 compares the distribution of users of selected methods by the service provider reported in the TDHS-2003 with the distribution reported in the TDHS-1998. The share of the public sector has substantially increased over the last five years in the case of all methods, except the IUD. For example, the percentage of women obtaining pill from a public sector provider increased from 26 percent in 1998 to 31 percent in 2003. This implies a 19 percent increase within the last five years.

Table 5.12 Trends in source of supply for selected modern methods

Percent distribution of current users of the pill, IUD, male condom, and female sterilization, by source of supply, TDHS-1998 and TDHS-2003

Source of supply	Female sterilization		Pill		IUD		Male condom	
	TDHS-1998	TDHS-2003	TDHS-1998	TDHS-2003	TDHS-1998	TDHS-2003	TDHS-1998	TDHS-2003
Public sector	76.9	82.0	26.0	30.6	71.8	71.3	27.7	34.1
Private sector	20.8	16.3	73.6	67.5	27.5	27.6	66.8	59.3
Other	2.3	1.7	0.4	1.9	0.7	1.1	5.5	6.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## 5.9 Informed Choice

Ensuring women receive the information they need to make an informed choice about the contraceptive method that they will adopt is key aspect of high quality family planning services. Family planning providers should inform all method users of potential side effects and what they should do if they encounter signs of a problem. This information assists users in coping with side effects and decreases unnecessary discontinuation of temporary methods. Users of temporary methods should also be informed of the choices they have with respect to other methods.

In the TDHS-2003, women currently using a modern method of contraception were asked whether they were informed of the possible side effects of the method they are using, and if so, whether they were informed of what they should do if they experience any side effects, and whether they were informed of other methods that could be used. Table 5.13 presents information on three aspects of informed choice. Fifty-four percent of users were informed about potential side effects of their method, 44 percent were told what to do if they experience any side effects, and just a third were given information about other family planning method options. These figures indicate that there is much scope for improving the quality of family planning services throughout the country.

With regard to current method, pill and IUD users appear to be better informed than users of other methods. Family planning providers in the urban areas are more likely to inform contraceptive users about the method side effects or problems, what to do if they experience side effects and other contraceptive options than their rural counterparts. Women in the North generally appear to have less access to information than women in other regions. As expected, women with high school education are better informed than women with little or no education.

**Table 5.13 Informed choice**

Among current users of modern contraceptive methods who adopted the current method in the five years preceding the survey, percentage who were informed about the side effects of the method used, percentage who were informed what to do if side effects were experienced, and percentage who were informed of other methods that could be used for contraception by method used and background characteristics, Turkey 2003

Background characteristic	Informed about side effects or problems of method used <sup>1</sup>	Informed what to do if experienced side effects <sup>1</sup>	Informed by a health or family planning worker of other methods that could be used <sup>1</sup>
<b>Method used</b>			
Female sterilization	36.8	27.5	25.9
Pill	54.1	38.3	33.0
IUD	59.1	50.3	31.2
Injectables	(28.6)	(23.2)	(26.4)
<b>Residence</b>			
Urban	56.1	46.7	34.1
Rural	48.5	36.0	19.9
<b>Region</b>			
West	56.1	46.6	33.9
South	56.3	46.4	29.4
Central	49.9	40.2	26.7
North	44.9	30.2	25.6
East	58.2	46.5	31.9
<b>NUTS 1 Region</b>			
İstanbul	57.9	48.0	37.8
West Marmara	(49.7)	(42.1)	(20.5)
Aegean	51.5	37.5	24.6
East Marmara	62.2	57.0	39.9
West Anatolia	56.1	46.6	32.4
Mediterranean	56.3	46.4	29.4
Central Anatolia	44.6	35.1	18.9
West Black Sea	33.7	23.6	21.4
East Black Sea	(42.6)	(29.9)	(28.3)
Northeast Anatolia	(44.3)	(33.2)	(18.0)
Central East Anatolia	51.1	43.1	26.3
Southeast Anatolia	69.7	55.2	42.4
<b>Education</b>			
No education/Primary incomplete	39.9	32.3	24.0
First level primary	52.0	42.0	24.6
Second level primary	58.5	50.6	41.6
High school and higher	71.9	57.6	48.8
Total	54.3	44.2	30.7

<sup>1</sup> Among users of female sterilization, pill, IUD, and injectables

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases.

## 5.10 Discontinuation of Contraceptive Use

The demographic impacts of contraceptive use depend not only on its prevalence but also on the effectiveness of use. In countries like Turkey where ideal family size has declined and contraceptive prevalence has risen, contraceptive effectiveness becomes an increasingly important determinant of fertility. In addition to its demographic impact, the analysis of contraceptive discontinuation is important because it aids policy makers and health professionals in their efforts to improve service delivery. This can highlight program areas that require development, as well as groups of users who have particular concerns that need to be addressed.

**Table 5.14 Contraceptive discontinuation rates**  
 First-year contraceptive discontinuation rates by reason for discontinuation, according to method, Turkey 2003

Contraceptive method	Reason for discontinuation				
	Method failure	To become pregnant	Switched to another method	Other reason	All reasons
Pill	5.5	7.2	29.8	11.7	54.2
IUD	1.5	0.6	6.2	2.3	10.6
Injectables	3.2	5.0	52.9	17.6	78.6
Male condom	5.7	9.9	26.2	3.2	44.9
LAM	18.6	1.9	43.6	11.5	75.5
Periodic abstinence	19.7	14.2	15.3	5.0	54.1
Withdrawal	13.1	9.1	15.1	3.7	41.1
All methods	8.6	6.8	19.4	5.1	39.8

LAM = Lactational amenorrhea method

Table 5.14 presents first-year contraceptive discontinuation rates by reason for discontinuation, according to the method discontinued. The discontinuation rate refers to the proportion of women who have started using a contraception method at some time in the 5 years prior to the survey, but then stopped using that method within 12 months of having started it. The rate is calculated using information from the reproductive event calendar included in the TDHS-2003. In the calendar, all segments of contraceptive use between January 1998 and the date of interview were recorded along with reasons for any discontinuation of use during the period.

The results indicate that 40 percent of contraceptive users in Turkey stop using a contraceptive method within 12 months of starting use. One would expect the rates to vary by method by virtue of the nature of the methods. For example, the IUD is not generally intended as a short-term method, and so a low discontinuation rate of 11 percent is to be expected. On the other hand, coitus-related methods are more easily discontinued: 45 percent of condom users discontinued within one year of use. The one-year discontinuation rate is as high as 79 percent for injectables, 54 percent for the pill, and 41 percent for withdrawal.

Around a half of those who discontinued use switched to another method. Although one might assume that the desire to become pregnant might be one of the main reasons for

discontinuing use of a method of contraception, only 7 percent of users discontinued within 12 months of initiating use for that reason. Another 9 percent of users stopped using as a result of method failure, and the remaining 5 percent stopped due to other reasons. Switching to another method accounts for an especially large portion of the relatively high discontinuation of the injectable, LAM and the pill (53 percent, 44 percent, and 30 percent, respectively). Method failure accounted for a substantial portion of the discontinuation of traditional methods (LAM, periodic abstinence and withdrawal).

Table 5.15 presents the distribution of all discontinuations during the five years prior to the survey by main reason for discontinuation according to the method used. The desire to become pregnant accounted for one-fifth of all discontinuations. Side effects and health concerns were frequently mentioned as reasons for discontinuation of modern methods. Method failure was more common among withdrawal users (35 percent) than modern method users. However, 17 percent of condom discontinuations and 12 percent of pill discontinuations also were due to method failure.

**Table 5.15 Reasons for discontinuation of contraception**

Percent distribution of contraceptive method discontinuations in the five years preceding the survey by main reason for discontinuation, according to specific methods, Turkey 2003

Reason for discontinuation	Pill	IUD	Diaphragm	Male condom	Withdrawal	All methods <sup>1</sup>
Became pregnant	12.4	4.9	18.7	16.8	35.2	22.1
Wanted to become pregnant	17.4	18.8	18.1	26.9	25.2	21.5
Husband disapproved	0.9	0.2	1.7	11.6	2.2	3.0
Side effects	33.7	37.9	5.9	0.6	0.2	13.1
Health concerns	6.4	7.9	1.9	0.7	0.9	3.0
Access/Availability	2.6	0.0	3.2	4.7	0.0	1.2
Wanted a more effective method	2.6	0.4	5.7	12.7	18.3	11.9
Inconvenient to use	3.1	0.7	14.4	5.0	0.3	1.7
Infrequent sex	4.2	0.4	6.2	1.6	4.0	2.7
Cost	2.5	0.1	0.0	0.8	0.0	0.5
Fatalistic	0.1	0.0	5.3	0.2	0.0	0.2
Menopause	1.8	4.1	6.3	2.6	3.0	2.8
Marital dissolution	1.9	6.0	1.7	1.2	1.6	2.4
Other	6.8	16.4	9.1	9.0	4.2	9.5
Missing	3.6	2.2	1.8	5.5	4.8	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	858	1,119	61	1,023	2,536	6,273

<sup>1</sup> Includes discontinuations of injectables, periodic abstinence, and folk methods

### 5.11 Intention to Use Contraception Among Non-Users

The intentions of women to use a method of contraception in the future provide a basis for forecasting potential need for contraceptives. To obtain information on the intentions, the TDHS-2003 survey asked currently married non-users of contraception whether they planned to use a method of contraception within next 12 months or at some time in the future. Table 5.16 presents the results according to the number of living children the nonusers have. Overall, 47 percent of currently married non-users do not intend to use a method of

contraception at any time in the future. Additionally, 4 percent say that they are unsure of their intent or the timing about future use. On the other hand, around half of currently married women who are not using a contraceptive method intend to use family planning at some time in the future; 32 percent state that they intend to use a method within next 12 months, and 16 percent intend to use later. The percentage of married women who do not intend to use a method of family planning increases as the number of living children increases, from 27 percent among women with one child up to 61 percent among women with four or more children.

**Table 5.16 Future use of contraception**  
Percent distribution of currently married women who are not using a contraceptive method by intention to use in the future, according to number of living children, Turkey 2003

Future use of contraception	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
In next 12 months	9.8	41.3	38.1	32.6	30.8	31.5
Use later	42.3	23.1	7.4	3.2	4.5	15.6
Unsure about timing	1.7	2.4	1.9	0.8	0.3	1.5
Unsure about use	3.9	3.5	1.7	2.0	2.4	2.7
Does not intend	41.7	27.2	49.2	59.8	60.9	47.4
Missing	0.5	2.5	1.5	1.5	1.1	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	384	492	507	333	512	2,228

<sup>1</sup> Includes current pregnancy

As Table 5.17 presents, 38 percent of non-users who intend to use a method at some time in the future report they would adopt the IUD. The pill is the most popular method of contraception for future use. Female sterilization is preferred by 10 percent of non-user women as a third preferred method of contraception for future use. The proportion preferring the IUD and the pill do not vary substantially with age; however, older nonusers are twice as likely as nonusers under age 30 to prefer female sterilization.

**Table 5.17 Preferred method of contraception for future use**  
Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to age, Turkey 2003

Method	Age		Total
	<30	30+	
Female sterilization	7.1	16.4	9.9
Pill	11.4	11.2	11.4
IUD	38.8	35.3	37.8
Injectables	6.5	8.7	7.1
Implants	1.3	1.3	1.3
Male condom	8.0	5.1	7.1
Diaphragm	0.1	0.4	0.2
LAM	0.1	0.5	0.2
Periodic abstinence	0.0	0.5	0.1
Withdrawal	9.1	7.3	8.6
Other	1.6	0.8	1.4
Unsure	15.8	12.6	14.9
Missing	0.1	0.0	0.1
Total	100.0	100.0	100.0
Number	761	320	1,080

LAM = Lactational amenorrhea method

## 5.12 Reasons for Non-Use of Contraception

Table 5.18 presents the reasons nonusers give for having no intention to use family planning by age. Nonusers who do not intend to use in the future are mainly over age 30 (90 percent), and their reasons for nonuse are quite different from the reasons of younger nonusers. Three in four of nonusers over age 30 are not exposed to pregnancy: 42 percent had a hysterectomy or are menopausal, and 32 percent reported that they are infecund. On the other hand, the most common reason for not intending to use a method among younger nonusers is reported as being infecund (45 percent).

Reason for not using contraception	Age		Total
	<30	30+	
<b>Fertility-related reasons</b>	54.7	85.2	82.2
Not having sex	4.0	5.7	5.5
Infrequent sex	0.6	2.2	2.1
Menopausal/hysterectomy	0.0	42.0	37.9
Subfecund/infecund	45.2	32.0	33.3
Husband infecund	4.9	3.3	3.5
<b>Opposition to use</b>	25.1	3.8	5.9
Husband opposed	6.0	0.8	1.3
Religious prohibition	4.9	1.4	1.7
Fatalistic	9.7	1.5	2.3
Embarrassed	4.6	0.1	0.6
<b>Lack of knowledge</b>	1.4	0.6	0.7
Knows no method	1.4	0.6	0.7
<b>Method-related reasons</b>	2.8	2.0	2.1
Health concerns	1.1	1.4	1.3
Fear side effects	0.0	0.3	0.2
Cost too much	1.6	0.4	0.5
Other	13.6	7.1	7.7
Don't know	2.4	1.0	1.2
Missing	0.0	0.2	0.2
Total	100.0	100.0	100.0
Number	103	955	1,055





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This chapter presents information on induced abortions, spontaneous abortions, and stillbirths. Stillbirths and spontaneous abortions are important maternal health indicators. The practice of induced abortion can have adverse effects on the health of women.

Induced abortions have additional significance for family planning services since one important goal of family planning is to eliminate unwanted pregnancies. Women may resort to induced abortions either when they have accessibility and availability problems for contraceptive services or when there are other psychosocial barriers that keep them back from using contraceptive methods to avoid unwanted pregnancies or when the pregnancy occur as a result of contraceptive failure.

In Turkey, induced abortion has always been important in fertility regulation, even before the legalization on socioeconomic grounds in 1983 with the enactment of the new population planning law. This law provided safe abortion on request during the first ten weeks of gestation for every woman who needed the service. Since the law was enacted, induced abortion has been available to women at government hospitals for a nominal fee and from the private sector.

In the TDHS-2003, questions were included to determine the total number of induced and spontaneous abortions and stillbirths in the lifetime of women. In the calendar module, detailed information on the duration of each pregnancy ending in an abortion and on the place where abortion occurred was collected for each pregnancy terminated since January 1998. In addition, women who reported ever having a pregnancy ending in a miscarriage/abortion or stillbirth were asked about the month and year in which the last such pregnancy terminated. For last pregnancies that ended in an induced abortion, information was collected on the main reason for the abortion. The TDHS-1998 had included a similar question. However, unlike the TDHS-1998 question, the TDHS-2003 employed an open-ended question to collect this information. For this report, the responses to the open-ended question are categorized into 6 groups including the reasons related to concerns about the health of the woman and child, the woman's desire not to have another pregnancy at all, concern that the pregnancy was too close to a prior pregnancy, and other reasons (e.g., economic or familial).

## **6.1 Life-time Experience with Pregnancy Terminations**

Table 6.1 shows the distribution of ever-married women by the total number of abortions (induced and spontaneous) and stillbirths that they reported ever having had during their reproductive lives. Overall, the table shows that, while relatively few women have had a stillbirth (4 percent), nearly one-fifth of ever-married women reported ever having had a

spontaneous abortion and 24 percent have ever had an induced abortion. Among the women who had had an induced abortion, more than 58 percent had had only one induced abortion.

Number of terminations	Abortions		Stillbirths
	Spontaneous	Induced	
None	79.2	76.1	96.0
1	14.6	13.8	3.5
2	3.9	6.3	0.3
3	1.5	2.3	0.1
4	0.4	0.8	0.0
5 or more	0.3	0.8	0.1
Total	100.0	100.0	100.0
Mean number	0.3	0.4	<0.1

The woman's age and the number of living children she has are strongly associated with the likelihood that a woman will have had an induced abortion. Table 6.2 shows that the percentage of ever-married women ever having had an induced abortion varies from less than 5 percent among women under age 25 up to 41 percent among women age 45-49, with the proportion rising markedly among women age 30 and older. The percentage of ever-married women who have had an induced abortion also increases steadily with the number of living children, from 3 percent of women with no living children to a peak of 33 percent among women with three or four children.

As Table 6.2 shows, the proportion of women ever have had an abortion is higher among urban than rural women (26 percent and 19 percent, respectively). Women in the East region (14 percent) are the least likely to have ever had an induced abortion and women in the Central (28 percent) and West (27 percent) regions are the most likely to report an induced abortion. Considering the pattern for the NUTS 1 regions, the proportion of women ever having had an induced abortion is lowest in Southeast Anatolia (10 percent) and the highest in West Black Sea (31 percent). There is little variation in the proportion of women with an induced abortion by education.

## 6.2 Current Levels and Trends in Abortion Rates

Table 6.3 shows the rates of abortions (spontaneous and induced) and stillbirths per 100 pregnancies for the five-year period prior to the TDHS-2003. The table reveals that, during this period, 23 percent of pregnancies among ever-married women terminated in other than a live birth. Induced and spontaneous abortions have higher share among non-live terminations. Only about one out of every 100 pregnancies ended in a stillbirth, while there were 21 abortions per 100 pregnancies, of which 11 were induced.

Table 6.2 Induced abortions by background characteristics		
Percentage of ever-married women ever having had an induced abortion, by selected background characteristics, Turkey 2003		
Background characteristic	Ever had an induced abortion	Number of women
<b>Age</b>		
15-19	4.5	238
20-24	4.2	1,045
25-29	12.3	1,479
30-34	21.4	1,488
35-39	30.7	1,420
40-44	37.8	1,330
45-49	41.0	1,073
<b>Number of living children</b>		
0	2.7	736
1	13.4	1,603
2	27.4	2,630
3	33.2	1,566
4	32.6	746
5 or more	27.2	794
<b>Residence</b>		
Urban	26.0	5,752
Rural	18.7	2,323
<b>Region</b>		
West	26.8	3,286
South	21.9	1,028
Central	27.9	1,867
North	21.7	590
East	13.9	1,305
<b>NUTS 1 Region</b>		
Istanbul	28.2	1,470
West Marmara	22.1	348
Aegean	29.6	1,157
East Marmara	22.3	710
West Anatolia	26.7	784
Mediterranean	21.9	1,028
Central Anatolia	23.7	471
West Black Sea	30.6	513
East Black Sea	20.2	291
Northeast Anatolia	23.4	245
Central East Anatolia	14.8	389
Southeast Anatolia	9.9	671
<b>Education</b>		
No education/Prim.incomp	21.3	1,761
First level primary	24.9	4,339
Second level primary	23.2	601
High school and higher	24.8	1,374
Total	23.9	8,075

Table 6.4 presents the trends in the levels of induced abortions during the period between the TDHS-1993 and TDHS-2003. Overall, the results suggest that there was a substantial decline in level of induced abortions during the period covered in the surveys, from 18 abortions to 11 abortions per 100 pregnancies.

Background characteristic	TDHS-1993	TDHS-1998	TDHS-2003
<b>Age</b>			
15-19	3.8	5.8	3.4
20-24	8.3	7.7	5.6
25-29	20.4	12.6	9.5
30-34	27.9	23.3	19.1
35-39	36.2	33.4	25.5
40-44	47.1	42.5	33.7
45-49	47.6	66.2	27.6
<b>Residence</b>			
Urban	21.3	16.1	13.2
Rural	12.4	11.6	7.2
<b>Region</b>			
West	24.9	18.0	14.7
South	16.3	13.7	10.2
Central	19.8	16.7	14.9
North	17.0	15.6	8.8
East	8.7	7.6	5.2
<b>NUTS 1 Region</b>			
Istanbul	NA	NA	15.1
West Marmara	NA	NA	13.0
Aegean	NA	NA	20.4
East Marmara	NA	NA	7.4
West Anatolia	NA	NA	15.5
Mediterranean	NA	NA	10.2
Central Anatolia	NA	NA	10.0
West Black Sea	NA	NA	17.0
East Black Sea	NA	NA	6.3
Northeast Anatolia	NA	NA	10.8
Central East Anatolia	NA	NA	4.4
Southeast Anatolia	NA	NA	3.9
<b>Education</b>			
No education/Prim. incomplete	13.9	11.8	8.3
First level primary	19.4	15.1	11.5
Second level primary	22.6	17.3	12.8
High school and higher	NA	NA	14.8
<b>Total</b>	<b>18.0</b>	<b>14.5</b>	<b>11.3</b>

<sup>a</sup> For TDHS-1993 and TDHS-1998 this category refers to secondary+.

Outcome	Number per 100 pregnancies
Abortions	21.3
Spontaneous	10.0
Induced	11.3
Stillbirths	1.3

The level of induced abortions also declined for most of the sub-groups. For instance, among urban women, there were 13 induced abortions per 100 pregnancies at the time of the TDHS-2003 compared to a rate of 21 abortions per 100 pregnancies in the TDHS-1993. With regard to the regions, the proportion of women who have had an induced abortion is the least in the East region as it was in TDHS-1998. The largest absolute declines in the percentages of women who have had an induced abortion are observed in the West (from 25 abortions per 100 pregnancies in the TDHS-1993 to 15 in the TDHS-2003) and in the North (from 17 abortions per 100 pregnancies in the TDHS-1993 to 9 in the TDHS-2003). Compared with the findings of the previous surveys, abortion rates within the various educational categories also have decreased, with the decline being greatest for women with secondary level primary or higher education. As a result, educational differentials in abortion rates appear to be closing in Turkey.

### 6.3 Patterns of Contraceptive Use Prior to and After Induced Abortion

TDHS-2003 calendar can be utilized to examine the women's use of contraception before and after an induced abortion. An examination of the patterns of contraceptive use before a woman has an abortion is important because pregnancies that end in abortions are often result from the use of ineffective contraceptive methods or from the failure to use methods effectively as well as from not using contraception at all. According to the TDHS-2003 results, all of these factors are related to abortion in Turkey.

As Table 6.5 shows, in the case of around one-fourth of the abortions during the five-year period prior to the survey, the woman was not using any contraceptive method in the month before she became pregnant. Among abortions in which contraception was used immediately prior to the pregnancy, women were more likely to be using a traditional than a modern method. Almost a half of the abortions occurred following a period of use of withdrawal (46 percent), while 23 percent occurred as the women was using a modern method, in particular the condom (10 percent), the pill (6 percent) or the IUD (5 percent).

**Table 6.5 Method used before abortion**  
Method used within one month before pregnancy for the last abortion reported in the five years preceding the survey, Turkey 2003

Method	Percentage using method before abortion
Pill	6.1
IUD	5.0
Injection	0.3
Diaphragm	0.8
Male condom	10.4
Lactational amenorrhea method	2.3
Periodic abstinence	3.5
Withdrawal	46.1
Other	1.1
No method	24.4
Total	100.0
Number	552

Information on the use of contraception in the month following an abortion is presented in Table 6.6. Women did not use any contraceptive method in the month following abortion in the case of almost one-third of the abortions in the five-year period before the survey, and they initiated use of a traditional method, principally withdrawal, in the case of somewhat more than one-quarter of the abortions. Overall, modern family planning methods were adopted in the month following the pregnancy termination in the case of 40 percent of abortions. In comparison with the mix of methods used before abortion, this represented a substantial increase in the use of modern methods. The IUD was the most popular method among women adopting a modern method after an abortion, followed by the pill and condom.

**Table 6.6 Method used after abortion**  
Method used within one month after pregnancy for the last abortion reported in the five years preceding the survey, Turkey 2003

Method	Percentage using method after abortion
Female sterilization	1.5
Male sterilization	0.2
Pill	10.3
IUD	15.9
Injection	1.6
Diaphragm	1.0
Male condom	9.4
Periodic abstinence	1.3
Withdrawal	26.4
Other	0.7
No method	30.7
Unknown	1.1
Total	100.0
Number	552

## 6.4 Reasons for Induced Abortion

The reasons women gave for having their last induced abortion are presented in Table 6.7. Four of every ten women had the abortion because they did not want to have another child. An additional 17 percent ended the pregnancy because it followed a previous pregnancy too closely. Thus, more than half of women who had an abortion wanted to space or limit their births at the time of the abortion. Among women citing other reasons for the abortion, the majority indicated that they ended the pregnancy because of economic problems or problems within family. Health problems were the main reason for the decision to have the last abortion among 12 percent of the women.

As the age of women increases, the proportion of women who had an abortion because they did not want another child also increases. The desire to delay (space) a wanted birth or concerns about health were cited somewhat more frequently as the reasons for ending the pregnancy among women under age 35 than among older women.

There is comparatively little variation between urban and rural areas in the reasons women gave for having an abortion, with around 40 percent of both urban and rural women saying that they had an abortion because they did not want another child. Urban women are somewhat more likely than rural women to say they had an abortion because it followed a prior pregnancy too closely. In turn, rural women cite other concerns (principally related to economic issues or familial problems) more often than urban women.

Looking at regional patterns, the East and North regions have the highest percentage of women reporting they had the abortion because they did not want another child (46 percent and 45 percent respectively) and the West Region has the lowest percentage (39 percent). Women in the West were the most likely to cite a concern about spacing pregnancies as the reason for abortion. Women in the Central region tended to give economic and familial reasons somewhat more often than women in the other regions.

The desire to limit births is the most frequently reported reason for abortion in all educational categories. Women with higher education are somewhat more likely than women in the other education categories to say that they had terminated the pregnancy because the period since the previous pregnancy was too short. The proportion citing economic or familial reasons for abortion is inversely related to a woman's educational level.

Table 6.7 Reasons for induced abortion

Percent distribution of ever-married women who ever had an induced abortion by reason for last induced abortion, according to background characteristics, Turkey 2003

Background characteristic	Health related to:						Total	Number of women
	Mother	Child	Mother and child	Didn't want another	Previous pregnancy just ended	Other		
<b>Age</b>								
15-19	*	*	*	*	*	*	100.0	12
20-24	(2.7)	(7.7)	(0.0)	(28.2)	(25.3)	(36.1)	100.0	43
25-29	9.8	4.3	0.8	37.8	20.4	26.9	100.0	170
30-34	5.0	4.3	1.7	34.1	23.0	32.0	100.0	305
35-39	7.0	3.2	1.9	36.9	16.9	33.7	100.0	408
40-44	8.7	3.3	1.3	45.0	14.2	27.4	100.0	458
45-49	5.7	1.8	1.0	47.5	13.1	31.0	100.0	401
<b>Residence</b>								
Urban	7.0	3.4	1.3	41.1	18.2	28.9	100.0	1,386
Rural	6.5	2.8	1.6	39.4	13.2	36.5	100.0	409
<b>Region</b>								
West	7.1	2.6	1.3	38.9	20.6	29.6	100.0	819
South	9.4	6.0	2.0	39.9	13.6	29.1	100.0	208
Central	4.9	3.0	0.8	41.1	13.6	36.2	100.0	489
North	6.5	4.5	1.5	45.1	16.6	25.8	100.0	117
East	9,3	3.4	2.3	46.0	14.1	24.8	100.0	162
<b>NUTS 1 Region</b>								
Istanbul	8.0	4.0	1.7	33.7	22.0	29.8	100.0	388
West Marmara	7.5	5.8	1.1	43.2	19.9	22.5	100.0	73
Aegean	4.4	0.3	1.1	41.6	18.9	33.6	100.0	319
East Marmara	6.1	1.2	1.4	46.9	17.4	27.1	100.0	145
West Anatolia	5	2.9	0.9	47.3	13.3	29.7	100.0	194
Mediterranean	9.4	6.0	2.0	39.9	13.6	29.1	100.0	208
Central Anatolia	7.5	4.4	0.0	42.5	11.9	33.8	100.0	103
West Black Sea	2.5	4.5	0.4	33.3	15.8	43.5	100.0	149
East Black Sea	10.3	3.7	2.2	45.2	14.2	24.5	100.0	54
Northeast Anatolia	8.3	2.9	2.9	43.1	11.8	31.1	100.0	51
Central East Anatolia	8.7	1.2	0.0	44.0	17.9	28.3	100.0	51
Southeast Anatolia	10.8	5.8	3.9	50.2	12.8	16.5	100.0	60
<b>Education</b>								
No education/Prim.incomp.	9.6	2.5	2.2	42.2	9.1	34.5	100.0	341
First level primary	6.0	3.3	1.1	39.3	17.6	32.8	100.0	1,001
Second level primary	7.9	2.7	0.3	40.2	22.2	26.7	100.0	130
High school and higher	6,5	4.5	1.8	43.7	21.7	21.3	100.0	322
Total	6.9	3.3	1.4	40.7	17.0	30.6	100.0	1,795

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.



## 6.5 Timing of Induced Abortions

Although abortions are legal for up to 10 weeks of pregnancy (2.5 months), it is safer for a woman to have an abortion as early as possible. Table 6.8 shows the distribution of ever-married women with an induced abortion in the five-year period before the survey by the number of months that the woman was pregnant at the time of the last abortion. Overall, 73 percent of the abortions occurred in the first month of pregnancy and 22 percent in the second month of pregnancy. Thus, only five percent of induced abortions were performed outside of the recommended time limit. Urban women and women in the Central and South regions are more likely to have had the abortion after the second month of pregnancy than women living in the other regions.

Residence and region	Number of months pregnant			Total	Number of women
	1	2	3+		
<b>Residence</b>					
Urban	72.0	22.4	5.6	100.0	437
Rural	78.7	19.9	1.5	100.0	115
<b>Region</b>					
West	70.6	25.1	4.3	100.0	245
South	73.6	21.2	5.2	100.0	69
Central	76.9	17.3	5.8	100.0	145
North	(73.1)	(22.8)	(4.1)	100.0	27
East	76.1	20.3	3.6	100.0	66
<b>Selected NUTS 1 Regions</b>					
Istanbul	73.0	23.9	3.2	100.0	121
Southeast Anatolia	(65.8)	(27.9)	(6.4)	100.0	28
Total	73.4	21.9	4.7	100.0	552

## 6.6 Abortion Provider

Table 6.9 presents information on the abortion provider. Nearly four in five women who had an induced abortion in the five-year period preceding the survey reported the abortion took place at a private doctor's office (57 percent) or at a private hospital or clinic (21 percent). Reliance on the private sector for abortion services was greater in the TDHS-2003 than in the TDHS-1998. Women seeking abortion services from public sector providers were more likely to report that they had obtained the abortion at a hospital than from a health center.

Rural women were somewhat more likely than urban women to have had the abortion performed at private doctor's office rather than hospitals or clinics. Highest preference of private hospital and clinic is observed among women living in Istanbul. The proportion obtaining abortion services at a private doctor's office or a private clinic or hospital little variation by region, from 74 percent in the Central to 80 percent in the West Region.

Table 6.9 Abortion provider											
Percent distribution of ever-married women with recent induced abortions by place of provision, according to place of residence, Turkey 2003											
Residence and region	Abortion provider									Total	Number of women
	Govern-ment hospital	Maternity hospital	Health center	SSK hospital	Private hospital/clinic	Doctor's office	Uni-versity hospital	Other	Missing		
<b>Residence</b>											
Urban	10.3	5.1	0.6	3.8	24.3	51.3	2.4	2.9	0.2	100.0	473
Rural	4.8	5.6	0.0	4.3	7.9	76.5	0.0	0.7	0.0	100.0	123
<b>Region</b>											
West	9.2	2.1	0.6	4.3	33.8	45.7	2.1	2.2	0.0	100.0	264
South	11.1	4.5	0.8	0.8	10.2	67.5	1.4	2.3	1.4	100.0	71
Central	9.9	9.3	0.0	5.2	11.6	61.9	2.1	0.0	0.0	100.0	162
North	(6.5)	(6.3)	(1.5)	(8.9)	(3.5)	(73.3)	(0.0)	(0.0)	(0.0)	100.0	27
East	6.5	7.7	0.4	0.8	11.8	66.6	1.6	4.5	0.0	100.0	73
<b>Selected NUTS 1 Regions</b>											
İstanbul	13,9	0,0	1,3	4,6	47,6	26,8	4,2	1,6	0,0	100,0	130
Southeast Anatolia	7,6	3,8	0,0	1,8	21,1	55,9	3,9	5,8	0,0	100,0	31
<b>Total</b>	9.2	5.2	0.5	3.9	20.9	56.5	1.9	1.8	0.2	100.0	597

## 6.7 Age-specific and Total Abortion Rates

Abortion rates for the five-year period preceding the survey are shown in Table 6.10 by place of residence. Age-specific rates represent the probability that a woman of a particular age will have an abortion during a one-year period. These rates are shown per 1,000 women. A useful summary index of the age-specific abortion rates is the total abortion rate (TAR). This rate is analogous to the total fertility rate (TFR). The TAR is the average lifetime number of abortions a woman would have if she experience the current age-specific abortion rates.

Table 6.10 Total abortion rates			
Age-specific and cumulative abortion rates for the five year period preceding the survey by urban-rural residence, Turkey 2003			
Current age	Urban	Rural	Total
15-19	2	2	2
20-24	12	4	9
25-29	19	9	16
30-34	23	19	22
35-39	18	15	17
40-44	8	6	8
45-49	1	2	1
TAR 15-49	0.42	0.29	0.38
TAR 15-44	0.41	0.28	0.37

TAR = Total abortion rate expressed per woman

The TAR per women is found to be 0.4 for the five years preceding the TDHS-2003. The age-specific rates increase to a peak among women age 30-34, and decline among older women. The rates of abortion are higher in urban than rural settlements at all ages, except the 15-19 cohort where the level is the same.

Total abortion rates by background characteristics are shown in Table 6.11. Central Region has the highest average number of abortion per women while the North has the lowest (0.47 and 0.23 respectively). Differences in TAR are modest by education.

<u>Table 6.11 Total abortion rates by background characteristics</u>	
Total abortion rate for the five year period preceding the survey by background characteristics, Turkey 2003	
Background characteristic	TAR 15-49
<b>Residence</b>	
Urban	0.42
Rural	0.29
<b>Region</b>	
West	0.41
South	0.32
Central	0.47
North	0.23
East	0.29
<b>Selected NUTS 1 Regions</b>	
Istanbul	0,42
Southeast Anatolia	0,24
<b>Education</b>	
No education/ Primary incomplete	0.36
First level primary	0.37
Second level primary	0.40
High school and higher	0.39
Total	0.38
TAR = Total abortion rate expressed per woman	

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This chapter addresses the principal factors other than contraception that affect a woman's risk of becoming pregnant, namely, nuptiality, postpartum amenorrhea, and abstinence from sexual relations. Marriage is an indicator of exposure of women to the risk of pregnancy and, thus, is important for the understanding of fertility. Populations in which age at marriage is low tend to experience early childbearing and high fertility. Therefore, an increase in the average age at which women marry can help to explain the trends in fertility levels. Measures of other proximate determinants of fertility including the duration of postpartum amenorrhea and postpartum abstinence are also important in understanding fertility patterns.

### 7.1 Current Marital Status

In the TDHS-2003, some information on never-married women was collected with a module included in the household questionnaire. In the individual questionnaire, nuptiality questions for ever-married women were included in a separate section. In this section, in addition to the basic questions on marital status and age at marriage that are included in the standard DHS questionnaire, there were also questions about family formation, religious marriages, and consanguinity. Unlike, the standard DHS questionnaire, ever-married women were not asked about the age at which they initiated sexual activity, for cultural reasons.

Table 7.1 and Figure 7.1 show the distribution of all women age 15-49 by their marital status at the time of the survey. Overall, 67 percent of all women are currently married<sup>1</sup> and 30 percent are never married. The proportions of women who are widowed and divorced are above 1 percent and the proportion separated is less than 1 percent. Looking at the age patterns, it is clear that marriage is almost universal in Turkey. The proportion of never-married women declines rapidly with age, from 88 percent among teenagers to 20 percent among women in their late twenties. Among women age 30 and older fewer than 1 in 10 women have never married, and the proportion never married among women age 45-49 who are nearing the end of the reproductive years is less than 2 percent.

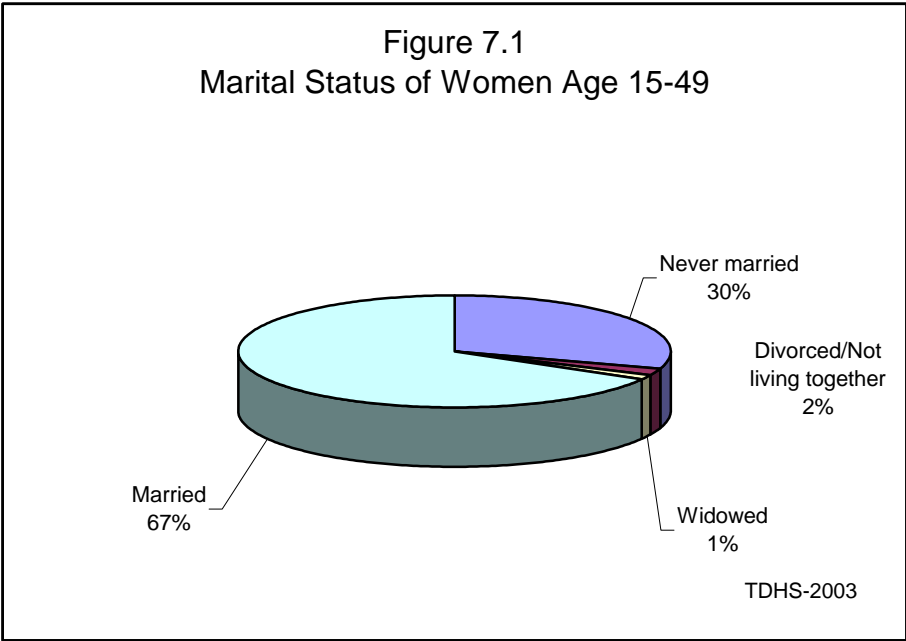
As expected, the proportion widowed increases with age, from less than 1 percent of women under age 30 to 5 percent among women at ages 45-49. The percentage of women who are divorced is markedly higher among women age 30-44 (although still less than 3 percent) than in the other age groups.

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<sup>1</sup>The term married refers both to "currently married" and "currently in union."

**Table 7.1 Current marital status**  
Percent distribution of women by current marital status, according to age, Turkey 2003

Current age	Never married	Marital status				Total	Number of women
		Married	Widowed	Divorced	Separated		
15-19	88.1	11.9	0.0	0.0	0.0	100.0	2,003
20-24	50.2	48.5	0.1	0.6	0.5	100.0	2,101
25-29	20.0	77.6	0.5	1.3	0.7	100.0	1,849
30-34	8.2	87.7	0.9	2.4	0.8	100.0	1,622
35-39	4.1	90.0	1.8	2.6	1.6	100.0	1,481
40-44	3.0	89.2	4.4	2.5	0.9	100.0	1,371
45-49	1.5	91.9	5.0	1.0	0.7	100.0	1,089
Total	29.9	66.6	1.4	1.4	0.7	100.0	11,517



Overall, there has been a slight decrease in the percentage of women currently married over the past five years, from 69 percent based on the TDHS-1998 to 67 percent in TDHS-2003. Much of this trend appears to be due to the postponement of marriage among younger women. The proportion of women who have never married increased in all age groups between the surveys, except the 45-49 age group. The increases were especially marked in the 20-24 and 25-29 age groups (11 percentage points and 7 percentage points, respectively)

**7.2 Age at First Marriage**

In Turkey, marriage demographically is very important, because, besides being prevalent throughout the country almost all births occur within marriage. Therefore, age at first marriage is a significant demographic indicator since it represents the onset of a woman’s exposure to the risk of pregnancy.

As shown in Table 7.2, the median age at first marriage is 20 among women 25-49, indicating that half of the women in those age groups married before that age. A steady increase is observed in the median age at first marriage, from 19.2 years for the 45-49 age group to 21 years for the 25-29 age group. There has been a marked decline in getting married at very young ages. For example, the percentage of women married by age 15 has dropped from 8 percent among women age 45-49 to 2 percent among women 20-24.

Current age	Percentage first married by exact age:					Percentage never married	Number of women	Median age at first marriage
	15	18	20	22	25			
15-19	1.4	NA	NA	NA	NA	88.1	2,003	a
20-24	2.2	18.4	33.1	NA	NA	50.2	2,101	a
25-29	3.6	23.1	40.4	58.5	73.3	20.0	1,849	21.0
30-34	4.4	27.3	46.4	64.1	80.8	8.2	1,622	20.4
35-39	5.7	28.7	50.6	66.3	82.0	4.1	1,481	20.0
40-44	8.3	37.4	58.3	73.3	86.2	3.0	1,371	19.2
45-49	8.3	34.7	58.0	76.4	88.5	1.5	1,089	19.2
20-49	5.0	27.0	46.0	NA	NA	17.6	9,514	20.5
25-49	5.7	29.5	49.6	66.7	81.3	8.4	7,413	20.0

NA = Not applicable  
<sup>a</sup> Omitted because less than 50 percent of the women married for the first time before reaching the beginning of the age group

Although the median is a convenient summary measure, not all changes in age at marriage are necessarily reflected in the median. Cohort trends in age at marriage can be more thoroughly examined by comparing the percentages who first marry at specific ages for successive 5-year age groups. These percentages confirm that substantial changes have occurred in the age at which women marry in Turkey over the past several decades. The percentages of women married at each specific age are all lower for the younger cohorts than for the older cohorts. For example, among women age 45-49, 58 percent married by age 20, whereas only 40 percent of women age 25-29 married by age 20.

Table 7.3 and Figure 7.2 present differentials in the median age at first marriage among women age 25-49 by residence, region and education. Looking at the residence patterns, urban women marry slightly later than their rural residence counterparts (20.3 years and 19.4 years respectively). This pattern is observed for all age groups.

The regional comparisons indicate that women get married earliest in the East and Central regions (19 years and 19.5 years, respectively) and latest in the South region (20.7 years). When the results for the NUTS 1 regions are examined, Mediterranean is the region with the highest median age (21.3 years) at marriage, whereas Central Anatolia has the lowest median age (19.1 years). Within regions, the median ages at first marriage for younger women are higher compared with those of the older age groups. For example, the median age at marriage in the 25-29 age group at Central East Anatolia is 23.7 years, five years later on average than the ages at marriage reported for women 35 and above in the same region. Likewise in İstanbul, West Marmara and

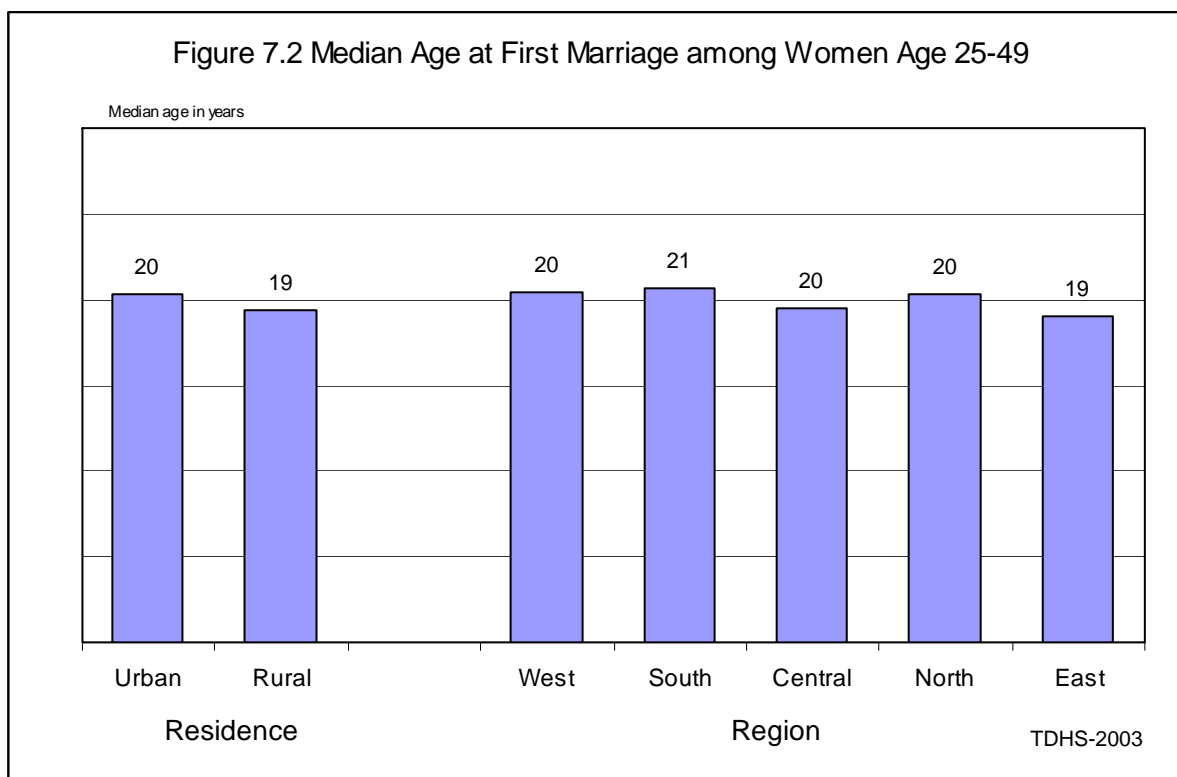
East Black Sea regions, half of the women in the 25-29 age group married after age 23, which is three or four years later than women age 35 and over married in the same regions.

**Table 7.3 Median age at first marriage**  
 Median age at first marriage among women age 25-49 by current age, according to background characteristics, Turkey 2003

Background characteristics	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
<b>Residence</b>						
Urban	21.3	20.5	20.3	19.4	19.7	20.3
Rural	20.4	20.1	19.5	18.8	18.5	19.4
<b>Region</b>						
West	21.3	20.6	20.6	19.6	19.7	20.4
South	21.1	20.8	21.0	19.7	20.4	20.7
Central	20.8	19.9	19.3	18.9	18.7	19.5
North	21.4	20.6	20.7	19.5	19.4	20.3
East	20.3	19.3	18.4	18.1	17.8	19.0
<b>NUTS 1 Region</b>						
Istanbul	23.0	21.4	20.3	19.5	19.8	20.9
West Marmara	23.1	20.2	19.8	19.1	18.9	20.4
Aegean	22.2	21.3	20.7	19.9	19.3	20.6
East Marmara	21.6	20.4	20.5	19.3	19.5	20.3
West Anatolia	21.9	20.1	19.8	19.8	19.7	20.4
Mediterranean	22.5	21.3	21.8	19.9	20.6	21.3
Central Anatolia	20.8	20.1	18.7	18.2	19.1	19.1
West Black Sea	22.1	22.4	20.9	19.9	19.0	20.6
East Black Sea	23.2	20.6	20.2	19.2	19.4	20.4
Northeast Anatolia	20.9	19.8	19.2	19.0	18.4	19.7
Central East Anatolia	23.7	20.2	18.3	18.5	18.3	20.0
Southeast Anatolia	21.1	19.6	18.8	17.8	16.9	19.3
<b>Education</b>						
No education/Prim.incomp.	18.4	18.8	18.4	17.5	17.7	18.0
First level primary	19.8	19.7	19.5	18.9	19.0	19.4
Second level primary	22.1	21.7	21.4	21.4	20.7	21.7
High school and higher	a	25.2	24.4	24.5	23.5	24.8
Total	21.0	20.4	20.0	19.2	19.2	20.0

<sup>a</sup> Omitted because less than 50 percent of the women married for the first time before reaching the beginning of the age group

As expected, there is positive association between the median age at first marriage and educational level of respondents. The differences between women who have completed at least high school and other women are especially pronounced. The median age at first marriage among women attending high school or higher is 24.8 years, almost 7 years higher than the median age among women with less than primary education (Table 7.3). Within educational categories, the relationship between the woman's age at first marriage and her current age is not uniform. For women with primary or higher education, the age at marriage increases from older cohorts to younger ones. For women with no education, however, while the median age at marriage generally increases from the older to younger cohorts, the pattern is not as uniform.



### 7.3 Postpartum Amenorrhea, Postpartum Abstinence, and Insusceptibility

The period of postpartum amenorrhea is the interval between childbirth and the return of menstruation. How long after child birth the protection from conception lasts depends on the length and intensity of breastfeeding and on how long it takes the woman to resume sexual intercourse.

The percentage of births whose mothers are postpartum amenorrheic, abstaining, and postpartum insusceptible at the time of the survey is presented in Table 7.4 by the number of months since birth. Women are considered as insusceptible if they are not exposed to the risk of pregnancy, either because they are amenorrheic or are still abstaining from sexual intercourse following a birth. The estimates of the median and mean durations shown in the table are calculated from these current status proportions. To calculate these averages the data were grouped by two-month intervals to minimize fluctuations in the estimates.

The results in Table 7.4 indicate that 92 percent of women are amenorrheic immediately following the delivery, but this value decreases to 57 percent starting from the second month after birth. The median duration of postpartum amenorrhea is about 3.4 months.

In Turkey, the period of sexual abstinence after birth traditionally lasts 40 days. The estimates of postpartum abstinence in Table 7.4 are in accordance with this tradition. Of all mothers, 86 percent abstain from sexual relations immediately following a birth. However, starting from the second month after a birth, the contribution of abstinence to the period of



insusceptibility is greatly reduced. At 2-3 months following a birth, the percentage of abstaining mothers decreases to 13 percent and by 6-7 months, to 7 percent (Figure 7.3).

Number of months since birth	Percentage of births for which the mother is			Number of births
	Amenorrheic	Abstaining	Insusceptible	
< 2	92.2	85.6	97.1	96
2-3	57.1	12.7	60.9	129
4-5	38.4	7.0	42.3	151
6-7	27.4	2.0	27.4	146
8-9	12.7	2.0	14.0	120
10-11	13.0	2.3	14.3	113
12-13	5.8	1.8	7.6	142
14-15	1.1	0.0	1.1	104
16-17	2.6	0.0	2.6	141
18-19	0.7	1.4	2.1	137
20-21	3.0	0.0	3.0	107
22-23	0.6	2.4	3.0	133
24-25	0.0	3.2	3.2	110
26-27	0.3	1.0	1.2	125
28-29	0.0	2.3	2.3	167
30-31	0.0	0.0	0.0	145
32-33	0.4	1.1	1.5	159
34-35	0.0	0.0	0.0	155
Total	13	5.7	14.5	2,380
Median	3.4	1.9	3.8	NA
Mean	5.4	2.8	5.9	NA

NA = Not applicable

Corresponding with the results of the previous surveys conducted in 1993 and 1998, findings from the TDHS-2003 show that the period of postpartum amenorrhea is comparatively longer than the period of postpartum abstinence. Postpartum amenorrhea therefore appears as the principal determinant of the length of postpartum insusceptibility to pregnancy in Turkey. For example, at 2-3 months following a birth, women are more than four times as likely to be amenorrheic as to be abstaining. As seen in Figure 7.3 the proportion of mothers who are amenorrheic drops sharply during the first year after a birth. At about 12-13 months, the proportion of mothers who are amenorrheic drops sharply to 6 percent and by 14-15 months only one percent of mothers are still amenorrheic while none of the mothers abstaining. Thus, virtually all women are susceptible to pregnancy by the second year after giving birth.

Figure 7.3  
 Percentage of Births Whose Mothers are Amenorrheic,  
 Abstaining, or Insusceptible

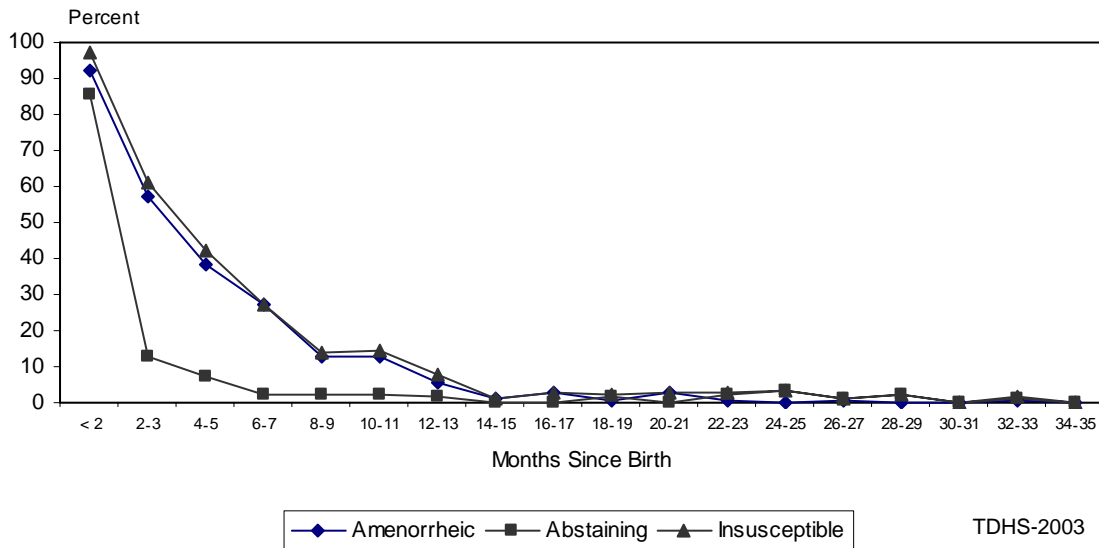


Table 7.5 shows the median duration of postpartum amenorrhea, abstinence, and insusceptibility by background characteristics of mothers. In Turkey, the average duration of postpartum abstinence does not vary greatly according to the mother’s age and residence. Somewhat greater variation is observed, however, among regions and with the level of mother’s education. For example, postpartum abstinence seems to be practised longer in the Aegean, East Marmara, and Central Anatolia than in other regions. İstanbul and Southeast Anatolia have the lowest median durations for postpartum abstinence (1.6 months).

Differences in the duration of postpartum amenorrhea by age, region, and level of education, although small, are worth highlighting. Women above age 30, women living in the East region, and women with less than primary education have the longest median duration for postpartum amenorrhea (3.9 months, 3.8 months, and 4.4 months, respectively). The shortest duration for postpartum amenorrhea is observed in the West Marmara region (0.8 months). The median number of months for postpartum amenorrhea is 4.4 months among women who do not have education, while it is 2.8 months for women with at least high school education.

**Tablo 7.5 Median duration of postpartum insusceptibility by background characteristics**

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Turkey 2003

Background characteristic	Amenorrheic	Abstaining	Insusceptible	Number of births
<b>Mother's age</b>				
<30	3.3	1.9	3.5	1,626
30+	3.9	1.9	4.5	754
<b>Residence</b>				
Urban	3.5	1.8	4.0	1,571
Rural	3.3	1.9	3.4	809
<b>Region</b>				
West	3.6	2.0	4.1	789
South	3.1	1.7	3.5	317
Central	3.2	1.9	3.7	456
North	2.4	1.9	2.5	144
East	3.8	1.7	3.9	674
<b>NUTS 1 Region</b>				
Istanbul	3.4	1.6	3.6	365
West Marmara	0.8	2.0	4.7	74
Aegean	2.8	2.2	3.7	247
East Marmara	3.4	2.2	3.6	195
West Anatolia	3.7	2.0	4.7	182
Mediterranean	3.1	1.7	3.5	317
Central Anatolia	3.8	2.2	3.9	134
West Black Sea	2.0	1.9	2.1	116
East Black Sea	4.7	1.8	4.7	75
Northeast Anatolia	2.9	1.9	3.2	105
Central East Anatolia	3.5	1.8	3.5	172
Southeast Anatolia	4.1	1.6	4.1	397
<b>Education</b>				
No education/Prim.incomp.	4.4	1.7	4.4	481
First level primary	3.2	1.9	3.6	1,288
Second level primary	3.3	2.0	3.6	488
High school and higher	2.8	1.9	4.6	123
Total	3.4	1.9	3.8	2,380

Note: Medians are based on current status

In Turkey, differentials in the median duration of postpartum insusceptibility reflect the combined effects of amenorrhea and abstinence. They exhibit a pattern similar to those for amenorrhea. In general, women over age 30, urban women, women living in the West, and educated women are insusceptible for relatively longer periods.

## FERTILITY PREFERENCES

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This chapter addresses the following questions, which allow an assessment of the need for contraception. Does the respondent want more children? If so, how long would she prefer to wait before the next child? If she could start afresh, how many children in all would she want? To what extent do unwanted or mistimed pregnancies occur? What effect would the prevention of such pregnancies have on the fertility rates?

Interpretation of data on fertility preferences has always been the subject of controversy. Survey questions have been criticized on the grounds that answers are misleading because: a) they reflect unformed, ephemeral views, which are held with weak intensity and little conviction; and b) they do not take into account the effect of social pressures or the attitudes of other family members, particularly the husband, who may exert a major influence on reproductive decisions.

Questions about fertility preferences were asked of women in half of the households in the sample of the TDHS-2003. Therefore, the total number of cases in the tables is different than that of tables in other chapters. For a detailed explanation see Appendix B.

### 8.1 Desire for More Children

In order to understand future fertility preferences, currently married women were asked: “Would you like to have another child or would you prefer not to have any more children?” If they did indeed want another child, they were asked: “How long would you like to wait from now before the birth of another child?” If the woman had not yet had any children, these questions were appropriately rephrased.

The inclusion of women who are currently pregnant complicates the measurement of views on future childbearing. For these women, the question on desire for more children was rephrased to refer to desire for another child *after* the one that they are expecting. To take into account the way in which the preference variable is defined for pregnant women, the results are classified by number of living children, including the current pregnancy as equivalent to a living child. In some cases, the answers of pregnant women with respect to preferred waiting time before the next birth may have included the remaining gestation period of the current pregnancy, and thus, may not be strictly comparable with the answers of non-pregnant women. Also, women who have been sterilized for contraceptive purposes were not asked about their desire for another child. However, for purposes of the fertility preference analysis, these women are classified as wanting no more children.

Table 8.1 presents the percentage distribution of currently married women by desire for more children according to the number of living children. The table shows the potential

need for contraceptive services for spacing as well as for limiting births. As Table 8.1 and Figure 8.1 show, 69 percent of currently married women expressed that they do not want to have more births in the future or were already sterilized for contraceptive purposes. Furthermore, 14 percent of the women stated that they want to wait for another birth at least two years. Therefore, about four out of every five currently married women can be regarded as in need of using family planning services either to avoid or to postpone childbearing. The proportion of currently married women who are undecided about having another child is only 3 percent. Findings from the previous TDHS-1998 show similar patterns, with slightly less desire to cease childbearing.

The desire for another child in the future decreases in relation to the increase in the number of living children. Among women with one living child, 67 percent want to have another child in the future. This percentage decreases rapidly to 12 percent among women with two children, 4 percent with three children and 3 percent with four or more children. The strong desire to stop childbearing appears when women have had two living children and remains at high levels at higher order parities.

Desire for more children	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
Have another soon <sup>2</sup>	70.4	17.9	3.9	1.2	2.0	9.9
Have another later <sup>3</sup>	15.5	47.1	7.8	2.6	0.8	13.6
Have another, undecided when	2.8	1.9	0.4	0.3	0.6	0.9
Undecided	0.3	5.9	4.4	1.3	0.8	3.1
Want no more	1.5	25.5	76.4	80.8	80.4	63.4
Sterilized	0.0	0.0	4.1	9.5	12.1	5.7
Declared infecund	9.4	1.6	2.6	4.0	2.7	3.1
Missing	0.0	0.1	0.4	0.4	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	241	763	1,312	785	776	3,876

<sup>1</sup> Includes current pregnancy  
<sup>2</sup> Wants next birth within 2 years  
<sup>3</sup> Wants to delay next birth for 2 or more years

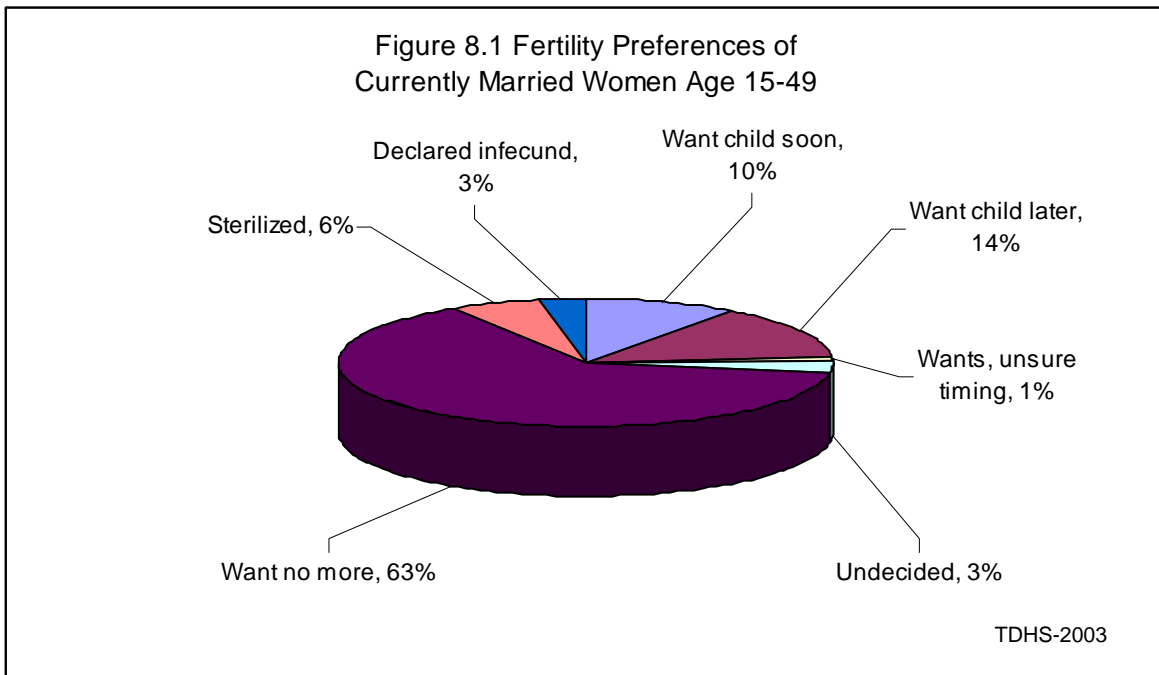


Table 8.2 presents the distribution of currently married women by the desire for more children according to current age. The proportion wanting more children decreases sharply with age. While 78 percent of women in the youngest cohort want more children, by age group 30-34, the proportion drops to only 19 percent. The desire to space births is concentrated among women under age 25. The proportion of women who prefer to limit childbearing increases rapidly with age, from 19 percent among women age 15-19 to 83 percent among women age 40-44.

**Table 8.2 Fertility preference by age**  
Percent distribution of currently married women (subsample) by desire for more children, according to age, Turkey 2003

Desire for	Current age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
More children								
Have another soon <sup>1</sup>	26.0	17.4	13.6	13.0	6.9	2.1	1.6	9.9
Have another later <sup>2</sup>	46.0	46.8	23.2	5.8	1.8	0.3	0.0	13.6
Have another, undecided when	6.2	0.8	1.8	0.6	0.3	0.2	0.2	0.9
Undecided	2.5	5.0	7.3	3.7	1.6	0.1	0.2	3.1
Want no more	19.2	29.6	50.6	68.3	77.5	82.8	78.2	63.4
Sterilized	0.0	0.2	2.8	7.8	8.9	8.9	5.7	5.7
Declared infecund	0.0	0.0	0.2	0.7	2.8	5.1	13.5	3.1
Missing	0.0	0.1	0.4	0.1	0.2	0.5	0.6	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	119	540	698	716	690	640	473	3,876

<sup>1</sup> Wants next birth within 2 years  
<sup>2</sup> Wants to delay next birth for 2 or more years

Table 8.3 presents the percentage of currently married women who want no more children by number of living children and background characteristics. The largest differences

in the proportions of currently married women who want to stop childbearing are observed for those with two children. Overall, the same proportion of urban and rural women wants to terminate childbearing. More women living in the North region (73 percent) desires to stop childbearing compared to those living in the East region (63 percent). The percentage of currently married women who want no more children further decreases to 61 percent in the Southeastern Anatolia.

Education is known to be negatively associated with the desire to stop childbearing. The proportion of women who want no more children decreases as the level of education increases (from 75 to 51 percent). However, the fact that the effect of education diminishes when these women are analyzed by their number of living children suggests that the reason uneducated or less educated women are more likely to want to stop childbearing is that they already have more children than the educated women. The same pattern was also noted in the TDHS-1998.

Table 8.3 Desire to limit (stop) childbearing						
Percentage of currently married women (subsample) who want no more children, by number of living children and selected background characteristics, Turkey 2003						
Background characteristic	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
<b>Residence</b>						
Urban	1.5	27.8	81.8	92.1	93.6	69.2
Rural	1.5	17.5	76.6	86.8	91.0	69.2
<b>Region</b>						
West	0.8	32.0	85.7	91.4	96.4	70.0
South	(3.0)	17.8	79.8	87.9	94.0	68.6
Central	(2.6)	27.6	82.2	93.2	91.0	71.7
North	*	(22.6)	77.7	92.7	94.2	72.8
East	(1.6)	6.8	54.1	82.0	89.7	62.6
<b>Selected NUTS 1 Regions</b>						
Istanbul	0.0	31.2	84.3	95.1	98.6	68.1
Southeast Anatolia	*	2.3	45.1	(75.1)	89.5	60.8
<b>Education</b>						
No educ./Prim. incomp.	(6.1)	(21.8)	65.7	79.8	89.3	74.9
First level primary	1.0	22.5	81.5	91.5	94.6	72.3
Second level primary	1.4	28.8	81.3	94.9	100.0	61.1
High school and higher	0.0	30.4	88.7	*	*	50.5
<b>Total</b>	1.5	25.5	80.5	90.3	92.6	69.2

<sup>1</sup> Includes current pregnancy  
Notes: Women who have been sterilized are considered to want no more children. Parentheses indicate that a figure is based on 25-49 unweighted cases. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.

## 8.2 Need for Family Planning Services

This section discusses the extent of need and potential demand for family planning services. Unmet need for family planning refers to fecund women who either wish to postpone the next birth (spacers) or who wish to stop childbearing altogether (limiters), but are not using a contraceptive method. Pregnant women are considered to have an unmet need for spacing or limiting if their pregnancy was mistimed or unwanted, respectively. Similarly, amenorrhoeic women are classified as having unmet need if their last birth was mistimed or unwanted. Women who are currently using a family planning method are said to have a met need for family planning. The total demand for family planning services comprises those who fall in the met need and the unmet need categories.

Table 8.4 shows the percentage of currently married women with unmet need, met need and the total demand for family planning services by selected background characteristics. The total demand for family planning is 76 percent, and 92 percent of this demand is satisfied. The demand for limiting purposes is three times as high as the demand for spacing purposes (58 and 18 percent, respectively). Among all currently married women, the demand of 6 percent of women are not met. Total unmet need is lower than that recorded in TDHS-1993 (12 percent) and TDHS-1998 (10 percent), when the percentage of demand satisfied was 84 percent and 87 percent respectively.

Unmet need is higher among women age 15-29 and women living in rural residences. Unmet need by region varies from 3 percent of women in the West to 15 percent of women in the East. According to NUTS 1 regions, the lowest unmet need is in the West Anatolia and the highest is in Central East Anatolia. Since educated women are more likely to use a contraceptive method than uneducated women, unmet need decreases and the percentage of demand satisfied increases with increasing educational level.

## 8.3 Ideal Number of Children

Another attitudinal dimension of childbearing considered in the TDHS-2003 is the total number of children a woman would ideally like to have, if it were entirely up to her. Respondents who had no children were asked how many children they would like to have if they could choose the number of children to have in their whole life. Those who had living children were asked about the number of children they would choose if they could start their childbearing again.

There is usually a correlation observed between actual and ideal number of children. The reason is twofold. First, to the extent that women implement their preferences, those who want larger families tend to achieve larger families. Second, women may adjust their ideal number of children upwards as their actual number of children increases. It is also possible that women with large families have larger ideal sizes because of attitudes they acquired 20 or 30 years ago.



Table 8.4 Need for family planning services

Percentage of currently married women (subsample) with unmet need for family planning, met need for family planning, and the total demand for family planning services, by selected background characteristics, Turkey 2003

Background characteristic	Unmet need for family planning <sup>1</sup>			Met need for family planning <sup>2</sup>			Total demand for family planning <sup>3</sup>			Percentage of demand satisfied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
<b>Age</b>											
15-19	11.7	3.9	15.6	40.5	7.5	48.0	56.5	12.2	68.8	77.3	119
20-24	8.7	2.5	11.2	39.0	20.1	59.2	50.5	23.9	74.4	84.9	555
25-29	3.0	3.0	6.0	30.2	43.1	73.3	34.3	46.7	81.0	92.6	717
30-34	0.7	3.7	4.3	12.5	64.9	77.4	13.7	69.3	83.0	94.8	748
35-39	0.7	4.0	4.7	5.2	73.2	78.4	6.0	78.0	84.0	94.4	726
40-44	0.1	4.3	4.3	0.7	69.3	70.0	0.8	73.6	74.4	94.2	705
45-49	0.0	4.6	4.6	1.1	47.4	48.5	1.1	51.9	53.0	91.4	507
<b>Residence</b>											
Urban	2.1	2.6	4.8	16.6	55.2	71.8	19.5	58.2	77.7	93.8	2,881
Rural	2.8	6.2	8.9	12.1	48.9	61.1	15.8	56.2	72.0	87.6	1,197
<b>Region</b>											
West	1.4	2.0	3.4	16.0	56.3	72.3	17.8	58.6	76.3	95.5	1,652
South	2.7	3.8	6.5	15.5	52.2	67.7	19.2	56.5	75.7	91.4	513
Central	2.2	2.2	4.4	14.3	58.6	72.9	17.6	60.8	78.4	94.4	962
North	1.0	5.1	6.1	13.8	53.6	67.4	15.4	59.5	74.8	91.9	298
East	5.0	9.4	14.5	15.4	39.1	54.4	21.9	50.5	72.4	80.0	653
<b>NUTS 1 Regions</b>											
İstanbul	1.4	2.4	3.8	19.1	55.8	74.8	21.1	58.2	79.2	95.2	715
West Marmara	0.4	3.7	4.1	17.2	63.1	80.3	17.7	67.4	85.1	95.2	178
Aegean	2.6	0.7	3.3	11.1	55.0	66.1	14.2	56.3	70.5	95.4	588
East Marmara	1.4	2.3	3.7	13.8	57.2	71.0	15.9	59.6	75.4	95.0	373
West Anatolia	1.2	1.1	2.3	15.7	62.6	78.3	17.3	63.7	81.0	97.1	413
Mediterranean	2.7	3.8	6.5	15.5	52.2	67.7	19.2	56.5	75.7	91.4	513
Central Anatolia	3.2	3.9	7.1	16.3	50.9	67.1	21.2	55.1	76.3	90.6	239
West Black Sea	0.7	3.2	3.9	13.1	58.6	71.8	14.2	62.6	76.8	94.9	254
East Black Sea	1.3	6.9	8.2	14.8	49.8	64.6	17.2	57.0	74.1	88.9	151
Northeast Anatolia	2.7	9.8	12.5	16.2	39.4	55.6	20.2	51.7	71.9	82.6	120
Central East Anatolia	5.9	10.9	16.8	14.5	39.4	53.8	22.3	52.6	74.9	77.6	201
Southeast Anatolia	5.4	8.4	13.8	15.6	38.8	54.4	22.2	48.9	71.1	80.6	332
<b>Education</b>											
No educ./Prim. incomplete	3.6	9.2	12.7	6.5	48.1	54.6	10.4	58.3	68.7	81.5	671
First level primary	2.0	3.0	4.9	13.4	57.5	70.9	16.2	61.2	77.4	93.6	2,327
Second level primary	2.5	1.8	4.3	24.2	50.0	74.2	27.5	51.9	79.4	94.6	830
High school and higher	1.6	1.9	3.5	26.8	39.5	66.3	29.8	41.8	71.6	95.1	249
Total	2.3	3.7	6.0	15.3	53.3	68.6	18.4	57.6	76.0	92.1	4,078

<sup>1</sup> Unmet need for *spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning but say they want to wait two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for *limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning but want no more children. Excluded from the unmet need category are menopausal or infecund women.

<sup>2</sup> Using for *spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for *limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

<sup>3</sup> Total demand for family planning includes pregnant or amenorrheic women who became pregnant while using a method (method failure).

Despite the likelihood that some rationalization occurs in the determination of ideal number of children, respondents often state ideals that are lower than their actual number of surviving children. Table 8.5 shows the distribution of respondents by ideal number of children and mean ideal number of children according to actual number of living children.

Except for women with no children, there is a positive relationship between the actual and ideal number of children.

The mean ideal number of children is 2.5 for both ever-married and currently married women. The table indicates that most women want small families. The mean ideal number of children increases from 2.2 for women with one child to 3.1 for women with four or more children. More than half of the respondents (57 percent) stated two children as the ideal number while only 17 percent of women consider four or more children as ideal. The mean ideal number of children among currently married women has remained about the same for the last 3 surveys (2.4 in TDHS-1993 and 2.5 in TDHS-1998).

Ideal number of children	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
0						
1	6.8	10.6	5.2	5.8	3.2	6.1
2	64.3	63.8	65.4	47.4	42.3	56.9
3	17.5	16.7	17.9	28.8	16.2	19.5
4	6.0	6.5	9.4	14.9	26.2	13.0
5	1.5	1.0	0.3	1.0	4.1	1.4
6+	2.7	0.1	0.5	0.9	5.1	1.5
Non-numeric response	0.8	0.3	0.7	0.8	2.4	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	266	831	1,369	809	803	4,078
<b>Ever-married women</b>						
Mean ideal number	2.4	2.2	2.3	2.6	3.1	2.5
Number of women	264	829	1,359	803	784	4,038
<b>Currently married women</b>						
Mean ideal number	2.4	2.2	2.3	2.6	3.1	2.5
Number of women	239	760	1,305	779	757	3,840

<sup>1</sup> Includes current pregnancy.  
 Note: The means exclude women who gave non-numeric responses.

Table 8.6 presents the mean ideal number of children for ever-married women by age and selected background characteristics. The mean ideal number of children does not vary significantly by age. It is equal to or less than the overall mean up to age group 30-34 and for older ages, it is just above the overall mean (2.6 children). Although there is little difference by residence, some regional variations are apparent. The mean ideal number of children is lowest in West and Central regions while it is the highest in the East (2.3 children and 3.1 children, respectively). The mean ideal number of children is negatively correlated with education. Women with no or less education have higher ideal sizes. The difference between ever-married women with no education and those who have high school or higher education is nearly one child.

Table 8.6 Mean ideal number of children by background characteristics

Mean ideal number of children for currently married women (subsample) by age and selected background characteristics, Turkey 2003

Background characteristic	Current age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
<b>Residence</b>								
Urban	2.3	2.5	2.3	2.5	2.5	2.5	2.6	2.5
Rural	(2.6)	2.4	2.5	2.7	2.8	2.8	2.7	2.7
<b>Region</b>								
West	(2.2)	2.3	2.1	2.4	2.3	2.3	2.3	2.3
South	*	2.7	2.5	2.6	2.9	2.9	3.2	2.8
Central	(2.1)	2.3	2.2	2.3	2.3	2.5	2.5	2.3
North	*	(2.1)	(2.2)	(2.4)	2.5	2.7	(2.7)	2.5
East	(2.9)	2.8	2.7	3.1	3.7	3.3	3.6	3.1
<b>Selected NUTS 1 Regions</b>								
Istanbul	*	2.3	2.2	2.4	2.3	2.5	2.3	2.3
Southeast Anatolia	*	3.2	3.1	3.4	3.9	(3.4)	*	3.4
<b>Education</b>								
No educ./Prim. incomplete	*	3.0	2.9	3.3	3.5	2.9	3.1	3.1
First level primary	2.4	2.5	2.3	2.5	2.5	2.6	2.5	2.5
Second level primary	(2.3)	2.3	2.2	2.2	2.2	2.3	2.4	2.3
High school and higher	*	(2.0)	2.2	2.2	2.3	(2.4)	*	2.2
Total	2.4	2.5	2.3	2.5	2.6	2.6	2.6	2.5

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.

## 8.4 Planning Status of Births

In TDHS-2003, ever-married women were asked a series of questions about each child born in the preceding five years and any current pregnancy, to determine whether the pregnancy was wanted then, wanted at a later time, or unwanted. These questions form a particularly powerful indicator of the degree to which couples successfully control childbearing; the data can also be used to gauge the effect on fertility of the prevention of unwanted births.

The questions on fertility planning are extremely demanding. The respondent is required to recall accurately her wishes at one or more points in time during the last five years and to report them clearly and honestly. The danger of rationalization is present; an unwanted conception may well become a cherished child. Despite these potential problems of comprehension, recall, and truthfulness, results from many surveys have proved surprisingly plausible. Respondents are willing to report unwanted conceptions, although some postpartum rationalization probably occurs. The results presented here are likely to underestimate the proportion of births that were unplanned at the time of conception.

Table 8.7 presents the percent distribution of births in the five years preceding the survey and current pregnancies by fertility planning status, according to birth order and mother's age at birth. Two in three births were wanted at the time of conception, an additional 14 percent were wanted but at a later time, and 20 percent were not wanted at all. Comparison with the TDHS-1998 indicates that birth planning patterns have not changed significantly.

**Table 8.7 Fertility planning status**  
Percent distribution of births (including current pregnancy) in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth, Turkey 2003

	Wanted then	Wanted later	Not wanted	Missing	Total	Number of births <sup>1</sup>
<b>Birth order<sup>1</sup></b>						
1	88.7	10.2	0.9	0.2	100.0	1,567
2	67.4	24.3	7.6	0.4	100.0	1,269
3	53.4	14.8	31.2	0.5	100.0	725
4+	37.1	5.9	56.3	0.7	100.0	1,043
<b>Age at birth</b>						
<19	82.2	13.9	3.9	0	100.0	559
20-24	70.5	19.2	9.9	0.4	100.0	1,601
25-29	63.8	13.5	22.1	0.5	100.0	1,359
30-34	58.7	8.3	32.3	0.7	100.0	689
35-39	44.7	4.1	51.2	0.0	100.0	313
40-44	25.3	0.0	74.7	0.0	100.0	79
45-49	*	*	*	*	100.0	5
Total	65.6	13.9	20.1	0.4	100.0	4,604

<sup>1</sup> The birth order and number of births include current pregnancies.  
Notes: This is a birth-based rather than a woman-based table and presented for all births of ever-married women instead of the sub-sample of women. An asterisk indicates a figure is based on fewer than 25 unweighted cases and has been suppressed.

Birth order is strongly associated with the planning status of birth. The proportion of births that were wanted at the time of conception decreases with increasing birth order, while the percentage not wanted at all increases. While 89 percent of first births were wanted at the time of conception, more than half of fourth order or higher order births were unwanted. The planning status of births is also associated with the age of mother. In general, older mothers tend to have a smaller percentage of children who are wanted at conception. The percentage of unwanted births increases with mother's age at birth.

Another way of measuring the extent of unwanted fertility is to estimate what the fertility rate would be if all unwanted births were avoided. This is known as the *wanted fertility rate* and is calculated in a similar manner as the total fertility rates presented in Chapter 4. The Lightbourne method of calculating a "wanted" birth is used for Table 8.8. Under the Lightbourne method, a birth is considered wanted if the number of living children at the time of conception was less than the current ideal number of children, as reported by the respondent. Births classified as unwanted according to the above definition are omitted from the numerator and the remainder is cumulated to form a wanted total fertility rate, which is analogous to the conventional fertility rate. This rate represents the level of fertility that theoretically would result if all unwanted births were prevented.

<b>Table 8.8 Wanted fertility rates</b>		
Total wanted fertility rates and total fertility rates for the three years preceding the survey by background characteristics, Turkey 2003		
Background characteristic	Total wanted fertility rate	Total fertility rate
<b>Residence</b>		
Urban	1.5	2.1
Rural	2.6	2.7
<b>Region</b>		
West	1.6	1.9
South	1.8	2.3
Central	1.3	1.9
North	1.3	1.9
East	1.9	3.7
<b>Selected NUTS 1 Regions</b>		
Istanbul	1.4	1.8
Southeast Anatolia	2.2	4.2
<b>Education</b>		
No education/Prim. incomplete	2.1	3.7
First level primary	1.9	2.4
Second level primary	1.2	1.8
High school and higher	1.0	1.4
Total	1.6	2.2
Note: The total wanted fertility rates were calculated based on information from women in the subsample only while the total fertility rates which are the same as those presented in Chapter 4 are based on the entire sample.		

The wanted total fertility rates are calculated for a sub-sample of ever-married women only. According to the results presented in Table 8.8, if all unwanted births were prevented, the total wanted fertility rate would be 1.6 children per woman, or 0.7 children less than the actual total fertility rate (27 percent lower than the actual fertility level). The total wanted fertility rate is lower than that recorded in TDHS-1998 (1.9 children) and TDHS-1993 (1.8 children). Table 8.8 also shows that the gap between actual and wanted fertility rates is highest among rural women, women living in the East region and women who have no education.

## INFANT AND CHILD MORTALITY

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Estimates of levels, trends and differentials in neonatal, post-neonatal and child mortality are important for monitoring and evaluating ongoing health programs and for formulating future policies. Levels of infant and child mortality are not only indicators related to health conditions, but are generally regarded as important indicators of the level of development of a society. Infant mortality rates and under-five mortality rates are used to assess the level of development, commonly as part of composite indexes. Infant and under-5 mortality rates appear in almost all international indicator sets on development, including those of the Millennium Development Goals.

This section focuses on the findings of the TDHS-2003 with respect to mortality during infancy and early childhood. The results of the TDHS-2003 are critical for the reassessment of policies and strategies for the improvement of survival chances of children in Turkey, since estimates from the vital registration system are not available. The section also includes estimates of perinatal mortality and examines the risk factors for births in Turkey.

Estimates in this chapter were computed by using the birth history data derived from the individual questionnaire. All ever-married female respondents in the TDHS-2003 were asked to provide a complete birth history, including the sex, birth date, survival status, and current age or age at death for each of their live births. The data were used to calculate five measures of infant and child mortality, namely:

- **Neonatal mortality**, the probability of dying in the first month of life
- **Post-neonatal mortality**, the probability of dying after the first month of life but before the first birthday
- **Infant mortality** ( ${}_1q_0$ ), the probability of dying in the first year of life
- **Child mortality** ( ${}_4q_1$ ), the probability of dying between the first and fifth birthday
- **Under-five mortality** ( ${}_5q_0$ ), the probability of dying before the fifth birthday.

Perinatal mortality estimates were computed by using data from the birth history, as well as the demographic calendar. The latter was used to collect information on stillbirths.

### 9.1 Assessment of Data Quality

Infant and child mortality rates are subject to both sampling and non-sampling errors. The measurement of sampling errors is relatively easy, but non-sampling errors are difficult to detect and correct for. Non-sampling errors cover a wide range of errors, involving under-reporting of births and deaths, errors by the interviewers in recording responses, and the like. International research has shown that infant and child mortality estimates from sample surveys

are susceptible to such errors. The first step in the consideration of the TDHS-2003 mortality data is to look for evidence of non-sampling errors in order to assess whether information collected in the survey on infant and child mortality are of acceptable quality.

One of the most powerful interviewing tools for collecting information on births and deaths is the birth history. However, birth histories are subject to respondent recall errors, and these errors may result in biased rates and trends over time. Therefore, a preliminary assessment of the quality of birth history data is made in this section with respect to completeness and accuracy of date reporting, heaping of age at death, and sex-selective omission of births.

A commonly encountered problem in birth history data is unreported birth dates and ages at death. Interviewers were required to obtain full information on birth dates (i.e., month and year of birth) for births occurring since January 1998 (for which calendar data was collected). Table D.4 in Appendix D shows that complete information on birth dates were collected for virtually all births occurring since 2001 and for nearly 94 percent of births during 1998-2000. There is somewhat greater deterioration in the completeness of birth date information the further back one goes from the survey date, but the percentage is above 90 percent for births occurring since 1985. Overall, the percentage of live births in the 15 years preceding the survey for which information on year of birth was missing is 4 percent. Both month and year of birth were missing for about one percent of all live births in the 15-year period before the TDHS-2003. Less than one percent of deaths recorded in the birth histories lacked an age at death. The TDHS-2003 data appear to be of good quality with respect to the completeness of the information collected on dates of birth and ages at death.

A further assessment of the data in regard to quality of birth dates does not reveal any systematic evidence of heaping. A pattern observed in previous surveys, the transference of births by interviewers out of the period for which health and calendar data were collected, does not seem to have happened in TDHS-2003. The calendar year ratios for the year 1998, the first year to be included in the health and calendar sections, are higher than 100, pointing to excess of births rather than a deficit (Table D.4 in Appendix D).

A closer inspection of the birth history data from the TDHS-2003 also reveals that heaping of ages at death was also minimal. In sample surveys, a commonly observed phenomenon is the heaping of age at death on convenient digits, for example on 6, 12, 18 or 24 months. This phenomenon may lead to the calculation of biased rates, especially if, as a net result, deaths are shifted from one age segment used in computing mortality rates to another. In this regard, one critical shift would be to record infant deaths as child deaths, by respondents heaping the age at death on 12 months, or by interviewers recording ages of death as "1 year". This seems to have not occurred in a considerable degree in the TDHS-2003, particularly for the last 10 year period (Table D.6 in Appendix D). A simulation model was applied to the data to see if the heaping of age at death on 12 months would bias estimates of infant mortality. The results indicated that any bias in the infant mortality rate from heaping would be less than 5 percent. The rates presented here are therefore calculated directly by assigning all deaths reported at 12 months or "1 year" to the post-infant age period.

One further check that was performed to assess the reliability of birth history data was to calculate sex ratios at birth for all live births. These ratios are expected to fluctuate around 105 male births per 100 female births. Table D.4 in Appendix D shows that the overall sex ratio for all births in the birth history is 104.4, which is in line with expectations. The sex ratio of live births during the 2000-2004 period is also in line with expectations, at 105.4. For earlier periods, fluctuations are observed in sex ratios at birth, without any systematic over or under reporting of males or females.

## 9.2 Levels and Trends in Infant and Child Mortality

The first panel of Table 9.1 presents infant and child mortality rates for periods 0-4, 5-9, and 10-14 years preceding the TDHS-2003. The first two of these periods largely correspond to the five-year periods preceding the TDHS-1998, which are shown in the lower panel of the table, thus enabling comparisons between the two surveys<sup>1</sup>.

The estimated infant mortality rate for the most recent period (0-4 years preceding the survey) is 29 per 1,000 live births. Some 59 percent of infant deaths occurred during the neonatal period (i.e. during the first four weeks of life). Child mortality is found to be approximately 9 per 1,000. The results also show that the probability of dying before the fifth birthday is around 37 per 1,000.

Most of the deaths before the first birthday in Turkey occur before completing the first month of life. In other words, as observed in the TDHS-1998, the pattern where neonatal mortality rates exceed post-neonatal mortality rates is continuing. An examination of the variation in mortality rates by age segments also reveals that a large proportion of under-five deaths occur before the first birthday (78 percent).

Years preceding survey	Neonatal mortality (NN)	Post neonatal mortality (PNN)	Infant mortality ( ${}_1q_0$ )	Child mortality ( ${}_4q_1$ )	Under-five mortality ( ${}_5q_0$ )
<b>TDHS-2003</b>					
0-4	17	12	29	9	37
5-9	24	22	47	10	56
10-14	34	25	59	11	69
<b>TDHS-1998</b>					
0-4	26	17	43	10	52
5-9	30	24	54	14	67

<sup>1</sup> The TDHS-2003 fieldwork was completed between December 2003 and May 2004; a somewhat longer data collection period was in effect compared to the TDHS-1998. The latter was completed during the summer and autumn months of 1998. On the average, the median reference date of estimates from the TDHS-2003 would differ by about 4 months from the estimates of the TDHS-1998, when five year period preceding each of the surveys is considered.



The figures in Table 9.1 point out to a relatively fast pace of decline in infant and child mortality rates in Turkey. For the two most recent periods, major declines in neonatal mortality (29 percent) and post-neonatal mortality (45 percent) have taken place. In general, a decline of about 38 percent in the infant mortality rate, and a decline of about 34 percent in the under-five mortality rate are implied by the results of the TDHS-2003. These declines are somewhat faster than those observed in the TDHS-1998. Using information from prior surveys, Figure 9.1 shows that the infant mortality rate has declined from 53 deaths per 1,000 live births in 1993 to 29 deaths per 1,000 in 2003.

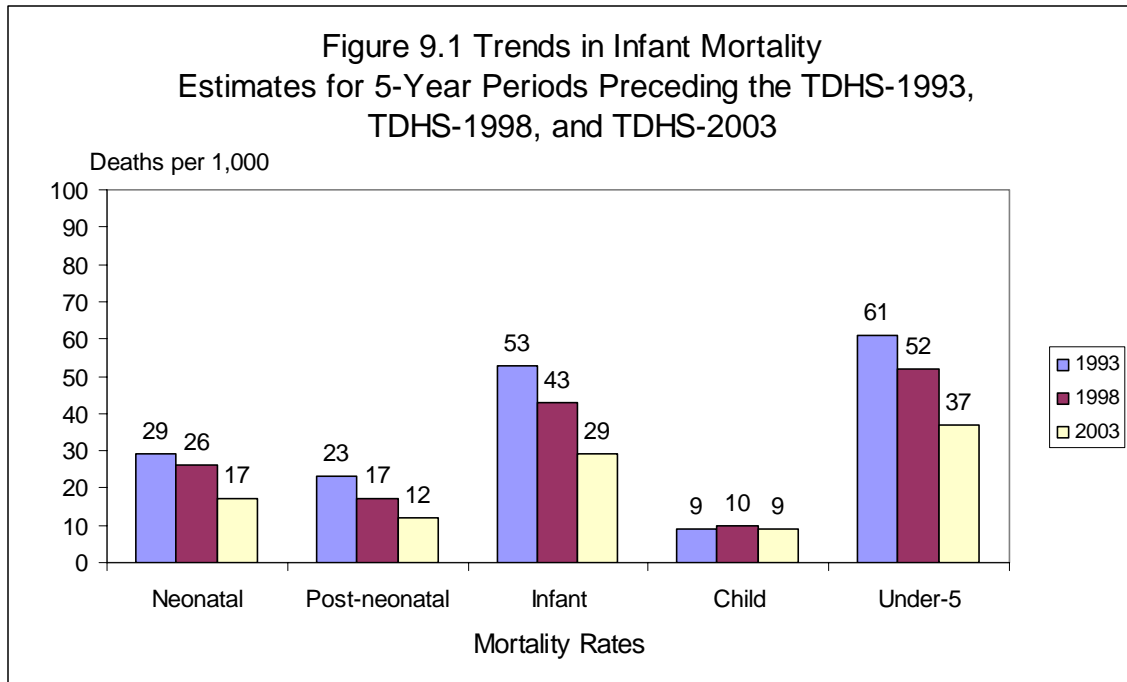


Table 9.1 also presents comparable mortality estimates from the TDHS-1998. Such comparisons are useful for further assessing the quality of data, as well as confirming the observed trends. Since the two surveys are approximately five years apart, the estimates for the 5-year periods preceding the two surveys overlap to a large extent. The estimates for the 5-9 year period preceding the TDHS-2003 are comparable with the estimates for the 0-4 year period preceding the TDHS-1998. The same comparability is also applicable to 10-14 and 5-9 year periods preceding the TDHS-2003 and TDHS-1998 respectively.

The consistency between the two surveys is impressive. In none of the estimates does one find a difference of more than 5 per thousand. Such differences are negligible and in fact imply full agreement between two sets of independent estimates in sample surveys.

### 9.3 Differentials in Infant and Child Mortality

Table 9.2 presents the mortality rates by urban-rural residence, region, and level of mother's education for the five-year period preceding the survey. The figures should be interpreted with caution, since they are based on a small number of observations and are,

therefore, statistically unstable. The infant mortality rate in the rural areas is about 70 percent higher than in urban areas (39 and 23 per 1,000, respectively). Most of the difference is attributable to differences in the post-neonatal mortality. In rural areas, the excess of neonatal mortality over post-neonatal mortality is smaller than in urban areas.

Table 9.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, post-neonatal, infant, child, and under-five mortality for the five-year period preceding the survey by socioeconomic characteristics, Turkey 2003

Socioeconomic characteristic	Neonatal mortality (NN)	Post neonatal mortality (PNN) <sup>1</sup>	Infant mortality ( ${}_1q_0$ )	Child mortality ( ${}_4q_1$ )	Under-five mortality ( ${}_5q_0$ )
<b>Residence</b>					
Urban	15	8	23	7	30
Rural	21	18	39	11	50
<b>Region</b>					
West	15	7	22	8	30
South	19	10	29	2	30
Central	10	10	21	12	33
North	20	14	34	14	48
East	23	18	41	7	49
<b>Selected NUTS 1 Regions</b>					
Istanbul	16	4	19	13	32
Southeast Anatolia	21	16	38	9	46
<b>Education</b>					
No education/Prim. incomplete	29	22	51	13	63
First level primary	14	11	25	8	33
Second level primary and higher	15	3	18	6	24

<sup>1</sup> Computed as the difference between infant and neonatal mortality rates

Infant and under-five mortality rates are higher than the national average in the North and East regions. In all regions, neonatal mortality exceeds post-neonatal mortality, with the exception of the Central region where the two rates are equal. Similar findings are also applicable for under-5 mortality rates. However, the child mortality rate for the South region is exceedingly low, most probably due to chance fluctuations, a characteristic often found in survey data especially in cases when the phenomenon under consideration falls within the definition of a rare event.

The strong relationship between survival chances of children and the level of education of their mothers is once again revealed by the TDHS-2003. For all measures of mortality, probabilities of dying are lower for children of mothers with higher educational levels. For instance, the infant mortality rate among children of mothers who have had no education or had not completed primary school is 51 per thousand, where the same rate is only 18 per thousand among children of women with second level primary or higher education.

Table 9.3 shows differentials in infant and child mortality by various biodemographic characteristics. In order to base the calculations on sufficient numbers of deaths and exposure, the rates are calculated for the 10-year period before the survey.

<u>Table 9.3 Early childhood mortality rates by biodemographic characteristics</u>					
Neonatal, post-neonatal, infant, child, and under-five mortality for the ten-year period preceding the survey by biodemographic characteristics, Turkey 2003					
Biodemographic characteristic	Neonatal mortality (NN)	Post neonatal mortality (PNN) <sup>1</sup>	Infant mortality ( <sub>1</sub> q <sub>0</sub> )	Child mortality ( <sub>4</sub> q <sub>1</sub> )	Under-five mortality ( <sub>5</sub> q <sub>0</sub> )
<b>Sex of child</b>					
Male	22	18	39	9	48
Female	20	16	36	9	45
<b>Mother's age at birth</b>					
< 20	20	27	47	13	60
20-29	20	16	35	7	42
30-39	25	15	40	10	50
40-49	11	15	26	55	79
<b>Birth order</b>					
1	15	13	27	5	33
2-3	20	16	36	9	44
4-6	25	22	47	16	62
7+	45	35	80	15	94
<b>Previous birth interval<sup>2</sup></b>					
< 2 years	39	35	74	16	89
2 years	23	16	38	11	49
3 year	14	12	25	9	34
4 years or more	16	11	27	7	34
<b>Size at birth<sup>3</sup></b>					
Small or very small	20	15	36	NA	NA
Average or larger	13	9	22	NA	NA

NA= not applicable  
<sup>1</sup> Computed as the difference between the infant and child mortality rates  
<sup>2</sup> Excludes first-order births  
<sup>3</sup> Refers for the five-year period before the survey

The influence of various biodemographic characteristics on survival chances of infants is well known, and the TDHS-2003 results confirm most of the expected relationships. Male mortality rates are higher than those for females during all age segments, as expected. Table 9.3 also shows that children of teenage mothers, high-birth-order children, and children born following a short birth interval face elevated risks of dying than those in other subgroups. Particularly notable are differentials by birth interval, where infant mortality rates are as high as 74 per thousand among children born after a birth interval of less than 2 years.

Children's weight at birth is also closely associated with their chances of survival. Children reported by mothers as "small or very small" at birth were 53 percent more likely to die during the neonatal period compared with children whose birth weight was reported as being "average or larger than average."

## 9.4 Perinatal Mortality

The TDHS-2003 asked women to report on pregnancy losses and the duration of the pregnancy for each loss, for all such pregnancies ending since January 1998 through to the interview date. Pregnancy losses occurring after seven completed months of gestation (stillbirths) plus deaths to live births within the first seven days of life (early neonatal deaths) constitute perinatal deaths. When the total number of perinatal deaths is divided by the total number of pregnancies reaching seven months gestation, the perinatal mortality rate is derived.

Table 9.4 Perinatal mortality				
Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Turkey, 2003				
Background characteristic	Number of stillbirths <sup>1</sup>	Number of early neonatal deaths <sup>2</sup>	Perinatal mortality rate <sup>3</sup>	Number of pregnancies of 7+ months duration
<b>Mother's age at birth</b>				
<20	7	8	28	525
20-29	19	31	19	2,668
30-39	20	12	36	908
40-49	2	1	*	79
<b>Previous pregnancy interval in months</b>				
First pregnancy	13	10	19	1,244
<15	6	14	42	463
15-26	13	7	23	865
27-38	3	8	22	520
39+	13	13	24	1,088
<b>Residence</b>				
Urban	29	29	21	2,752
Rural	19	23	29	1,429
<b>Region</b>				
West	12	14	19	1,354
South	7	8	27	564
Central	10	7	20	822
North	1	4	(19)	253
East	19	20	33	1,187
<b>Selected NUTS 1 Regions</b>				
Istanbul	4	6	16	647
Southeast Anatolia	9	9	27	679
<b>Mother's education</b>				
No education/Prim. incomplete	17	18	38	905
First level primary	26	22	21	2,259
Second level primary	5	11	19	820
High school and higher	0	2	(8)	196
<b>Total</b>	<b>48</b>	<b>52</b>	<b>24</b>	<b>4,180</b>
<sup>1</sup> Stillbirths are foetal deaths in pregnancies lasting seven or more months.				
<sup>2</sup> Early neonatal deaths are deaths at age 0-6 days among live-born children.				
<sup>3</sup> The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration.				
Note: Figures in parentheses are based on less than 250 unweighted pregnancies.				

Table 9.4 shows perinatal mortality rates, according to demographic and socioeconomic characteristics. The perinatal mortality rate is estimated at 24 per thousand during the 5 years preceding the TDHS-2003. As expected, the perinatal mortality rate exhibits a U-shaped relationship with the age of the mother, with the rate declining to 19 per thousand when the mother's age is 20-29. Pregnancies after a short pregnancy interval are also expected to be at high perinatal risk; in Turkey, the perinatal mortality rate is as high as 42 per thousand when the pregnancy interval is less than 15 months.

Perinatal mortality rates are higher in rural areas (29 per thousand) compared with urban areas (21 per thousand). The rate is higher in the South and East region than the national average. Once again, a strong relationship is evident between mother's education and perinatal mortality risks. For women in the lowest education category, perinatal mortality rate is as high as 38 per thousand, but declines to a level almost a third of the national average for pregnancies of women with high school or more education.

## 9.5 High-risk Fertility Behaviour

As the findings in the previous section indicate, a strong relationship exists between a mother's pattern of fertility behavior and her children's survival chances. Infants and young children born to very young mothers or to older mothers, born after a short birth interval, or born after their mothers have already had many children, face higher mortality risks. In the following analysis, mothers are classified as "too young" if they were less than 18 years old at the time of the birth, and "too old" if they were 34 or older at the time of the birth. A "high birth order" is one occurring after three or more previous births. A "short birth interval" is defined as a birth occurring less than 24 months after a previous birth. In the analysis of birth intervals, only children whose preceding birth interval was less than 24 months are included, even though a short birth interval also increases the risk of dying for the previous child at the beginning of the interval. The latter relationship is subject to reverse causality in that the death of an earlier child may cause the subsequent interval to be short.

Column 1 in Table 9.5 shows the percentage of children born in the five years preceding the survey who were in specific risk categories. Risk ratios are also presented for each of the risk categories (see column 2, Table 9.5). A risk ratio here is defined as the ratio of the proportion dead among children in a risk category, to the proportion dead among children *not in any high-risk category*.

Thirty-nine percent of children born in the five years preceding the survey were at elevated risk of dying at the time of their birth. First births to women between ages 18-34 are not included in this figure since they are considered to be in an unavoidable risk category. Among all children, 27 percent had an increased risk due to a single risk category, and 13 percent had an increased risk due to multiple factors. It is evident from the table that high birth order and short birth intervals are major factors contributing to elevated risks of mortality. Some 23 percent of children born in the last five years were of high birth orders, while 18 percent were born after a short interval.

Children whose mothers were in a single high-risk category faced more than twice the risk of dying than those children whose mothers were not in any of the risk categories. For those in a multiple high-risk category, relative mortality risks were up to 3 times the risks faced by children not in any risk category (Column 2, Table 9.5). The table shows that children born after a short birth interval faced 2.5 times higher risk of dying compared to those in the no-risk category. The findings also show that children born into any of the risk categories face up to 240 percent higher mortality risks.

<u>Table 9.5 High-risk fertility behavior</u>			
Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying, and the percent distribution of currently married women at risk of conceiving a child with an elevated risk of dying, by category of increased risk, Turkey 2003			
Background characteristic	Percentage of births	Risk ratio	Percentage of currently married women <sup>a</sup>
<b>Not in any high-risk category</b>	30.6	1.00	29.0 <sup>b</sup>
<b>Unavoidable risk category (First births)</b>	30.4	1.14	7.1
<b>Single high-risk category</b>			
Mother's age <18	3.1	1.78	0.2
Mother's age >34	2.5	1.49	17.8
Birth interval <24 months	10.0	2.49	7.4
Birth order >3	10.9	1.98	8.7
Subtotal	26.5	2.11	34.1
<b>Multiple high-risk category</b>			
Age <18 & birth interval <24 <sup>c</sup> months	0.3	2.04	0.0
Age >34 & birth interval <24 months	0.3	0.00	0.3
Age >34 & birth order >3	4.9	2.54	25.4
Age >34 & birth interval <24 months and birth order >3	0.9	3.74	1.1
Birth interval <24 months and birth order >3	6.0	3.52	3.0
Subtotal	12.5	3.03	29.1
<b>In any high-risk category</b>	39.0	2.40	63.9
Total	100.0	-	100.0
Number of births	4,132	-	7,672

Note: Risk ratio is the ratio of the proportion dead of births in a specific high-risk category to the proportion dead of births *not in any high-risk category*.

<sup>a</sup> Women were assigned to risk categories according to the status they would have at the birth of a child, if the child were conceived at the time of the survey: age less than 17 years and 3 months, age older than 34 years and 2 months, latest birth less than 15 months ago, and latest birth of order 3 or higher.

<sup>b</sup> Includes sterilised women

<sup>c</sup> Includes the combined categories Age <18 and birth order >3.

The final column of Table 9.5 includes the distribution of currently married women according to category of increased risk they would have been in if they had conceived at the time of the survey. A woman's current age, time elapsed since last birth, and parity are used to determine into which category her next birth would have fallen if she had conceived at the time

of the survey. For example, if a woman age 37 who had five children and had had her last birth three years before the survey were to have become pregnant, she would have fallen into the multiple risk category of being too old (34 or older) and at too high a parity (4 or more children). Women who have been sterilized are categorized as not being in a high-risk category.

Sixty-four percent of women who were married at the time of the TDHS-2003 were found to be at risk of conceiving a child with an increased risk of dying. Twenty-nine percent of women fell into none of the risk categories while another 29 percent of women fell into a multiple risk category. As shown in the second column of the table, if a woman in this category were to conceive, the survival chances of a child would be considerably lower than those of births to women not in the risk categories. The largest group of women fell into the multiple risk category where the child to be born would have had, at the time of birth, a mother who was older than 34 and who already had at least three births.

## ANTENATAL CARE AND DELIVERY ASSISTANCE

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This chapter presents the TDHS-2003 findings concerning antenatal care and delivery assistance, which are areas of importance to maternal and child health. The results on antenatal care and assistance at delivery are based on data collected from mothers on all live births that occurred in the five years preceding the survey.

Aspects of antenatal care (ANC) that are examined include the type of provider, number of visits made, components of the antenatal care, and the stage of pregnancy at the time of the first visit. Similarly, the delivery services are described according to the person assisting and the type and place of delivery.

### 10.1 Antenatal Care

Table 10.1 shows the percent distribution of women who had a live birth in the five years preceding the survey by ANC provider during pregnancy for the most recent birth, according to the background characteristics and birth order of the child. The interviewers were instructed to record all persons a woman had consulted for care if more than one source of ANC was mentioned for the same pregnancy. However, for this tabulation, only the provider with the highest qualifications is considered if there were more than one provider. It should be considered, however, that the quality of antenatal services is not reflected in these figures.

As seen in Table 10.1, 81 percent of the mothers had at least one ANC visit from trained health personnel during the pregnancy of their most recent birth in the five years preceding the survey. Three-quarters of the mothers received care from the doctor. On the other hand, nearly one-fifth of the mothers did not receive any ANC.

To compare the results with those of the previous survey conducted in 1998, not only the most recent birth but all live births in the five years preceding the survey must be taken into account. This comparison indicates an 11 percentage point increase (from 60 to 71 percent) in the proportion of mothers seeing a doctor for ANC in the five years from 1998 to 2003. Furthermore, proportion of mothers who did not receive any ANC decreased from 32 to 23 percent between the two surveys.

There are marked differences in ANC by background characteristics. Younger mothers are more likely to seek ANC from trained health personnel than women over age 35 (Figure 10.1). In the case of 30 percent of the births to women age 35 and over, the mother did not receive any ANC. The differences in the proportions of live births with ANC according to birth order are also striking. As birth order increases proportions of live births that have



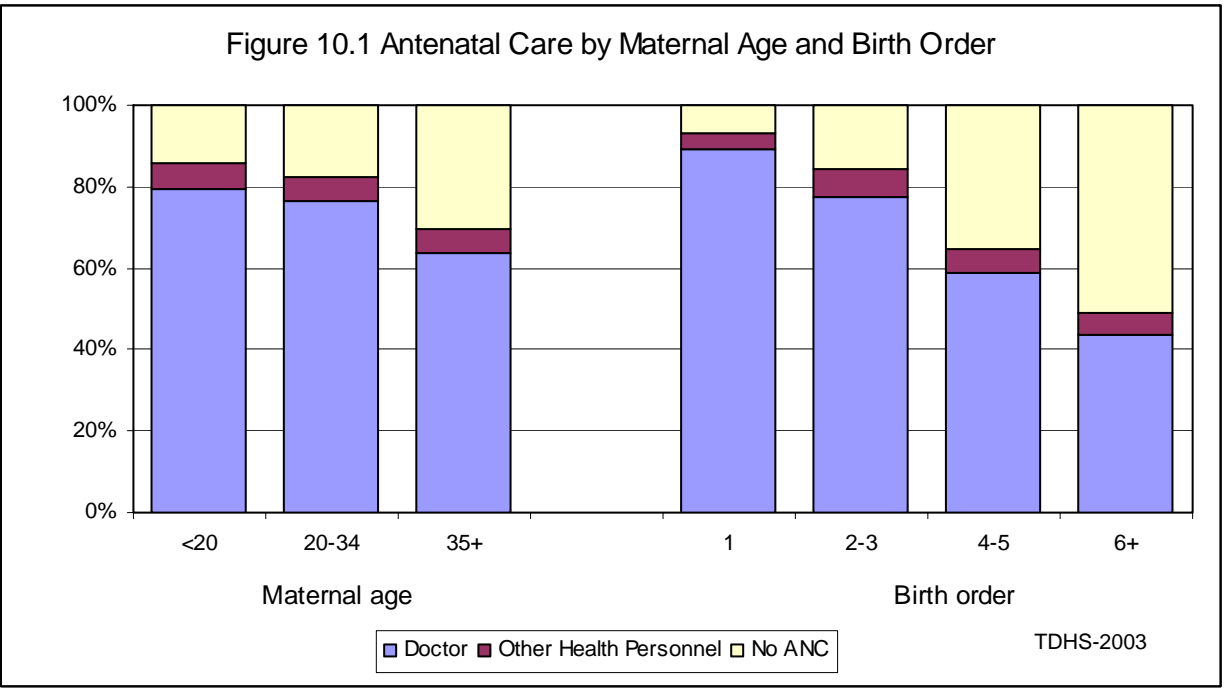
received ANC declines. Children of birth order three or lower are almost twice more likely to have received ANC than births of order six or higher.

Table 10.1 Antenatal care

Percent distribution of ever-married women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth, according to background characteristics, Turkey 2003

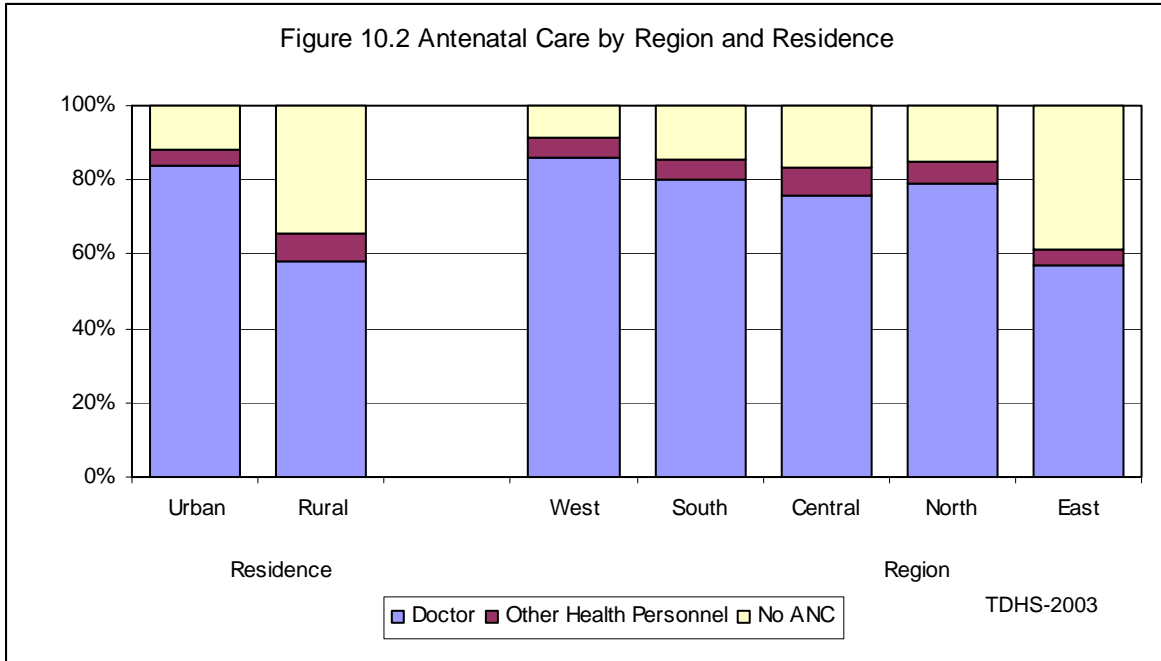
Background characteristic	Doctor	Nurse/ midwife	Traditional birth attendant/ other	No one	Missing	Total	Number of women
<b>Age at birth</b>							
<20	79.4	5.9	0.3	14.4	0.0	100.0	326
20-34	76.4	5.4	0.1	17.8	0.3	100.0	2,523
35-49	63.3	6.1	0.5	30.0	0.0	100.0	316
<b>Birth order</b>							
1	89.3	3.6	0.1	7.0	0.0	100.0	1,000
2-3	77.0	6.9	0.2	15.6	0.3	100.0	1,465
4-5	58.3	5.4	0.4	35.1	0.7	100.0	417
6+	43.5	5.2	0.2	51.1	0.0	100.0	283
<b>Residence</b>							
Urban	83.5	4.6	0.2	11.6	0.2	100.0	2,172
Rural	57.7	7.6	0.3	34.2	0.3	100.0	992
<b>Region</b>							
West	85.8	5.4	0.1	8.5	0.2	100.0	1,119
South	79.6	5.3	0.1	14.6	0.4	100.0	426
Central	75.4	7.3	0.3	16.6	0.5	100.0	673
North	78.4	6.2	0.6	14.8	0.0	100.0	192
East	57.0	4.0	0.2	38.8	0.0	100.0	754
<b>NUTS 1 Region</b>							
Istanbul	89.5	1.6	0.2	8.7	0.0	100.0	537
West Marmara	86.2	5.8	0.0	8.0	0.0	100.0	108
Aegean	75.2	12.6	0.0	12.2	0.0	100.0	330
East Marmara	87.1	3.7	0.0	8.1	1.1	100.0	260
West Anatolia	78.4	6.8	0.6	13.7	0.6	100.0	296
Mediterranean	79.6	5.3	0.1	14.6	0.4	100.0	426
Central Anatolia	71.6	8.3	0.0	19.6	0.4	100.0	185
West Black Sea	74.0	9.4	0.0	16.6	0.0	100.0	166
East Black Sea	80.3	4.6	1.1	13.9	0.0	100.0	102
Northeast Anatolia	49.9	7.1	0.0	43.0	0.0	100.0	131
Central East Anatolia	51.0	5.0	0.4	43.7	0.0	100.0	212
Southeast Anatolia	62.4	2.4	0.1	35.0	0.0	100.0	410
<b>Education</b>							
No education/Primary incom.	47.5	5.9	0.8	45.7	0.1	100.0	696
First level primary	78.0	6.6	0.0	15.1	0.3	100.0	1,665
Second level primary	88.7	5.6	0.0	5.7	0.0	100.0	260
High school and higher	97.1	1.5	0.0	1.1	0.3	100.0	543
<b>Total</b>	<b>75.4</b>	<b>5.5</b>	<b>0.2</b>	<b>18.6</b>	<b>0.2</b>	<b>100.0</b>	<b>3,164</b>

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.



There are substantial residential and regional variations in ANC (Figure 10.2). Mothers living in urban settlements are more likely to have ANC from a doctor than those living in rural areas (84 percent and 58 percent, respectively). For one-third of rural births in the five years preceding the survey, the mother did not receive any ANC at the most recent birth. Antenatal care coverage exceeds 80 percent in all regions except the East, where it was received by 61 percent of the mother at the most recent births in the five years prior to the survey. Especially in the Northeast and Central East Anatolia only 6 in 10 women received ANC at their recent birth in the last five years. The use of antenatal care services is strongly associated with mother's education. Almost all births to women with at least high school level education received antenatal care, while only half of births to women with less than primary education (53 percent) received any antenatal care. In all regions, the proportion of doctor providing ANC is markedly more than the other health personnel.

In Turkey, younger, low parity women, women living in urban areas and in the regions other than the East, and women with at least first primary level education are more likely to have received ANC compared to other women.



## 10.2 Number and Timing of Antenatal Care Visits

Antenatal care is most beneficial when it is sought early in pregnancy and is continued throughout a pregnancy. The first antenatal visit should take place before the third month of pregnancy. The advantage of early detection of pregnancy is that a woman's normal baseline health status can be assessed, making early diagnosis of any abnormalities easier. The total number of antenatal visits is also important in assessing the adequacy of ANC. According to the recommended schedule, antenatal care visits should be done monthly until 28 weeks' gestation (7<sup>th</sup> month), then every two weeks until 36 weeks, and then every week until 40 weeks or delivery. Regular visits allow proper monitoring of the mother and child throughout pregnancy.

Table 10.2 presents information on the timing and number of visits made to health providers for the most recent birth in the five years preceding the survey by residence. Overall, more than half of women made more than four ANC visits. The table shows that there is significant residential difference both in the timing and the number of visits made for ANC. The percentage of urban women who made four or more ANC visits is almost twice that of rural women. Proportion of women who did not receive any ANC are only 12 percent in the urban areas whereas this is one-third for those living in rural areas.

Table 10.2 indicates that many women in Turkey are aware of the importance of an early visit for ANC visit. Overall 71 percent of women made an ANC visit before the sixth month of their most recent pregnancy in the five years preceding the survey. More women in urban areas (80 percent) seek ANC before the sixth month of pregnancy compared to women in rural areas (52 percent). Reflecting the greater tendency among rural women to delay seeking care, the median duration of pregnancy at the first antenatal visit is 2.6 months in urban areas and 3.5 months in rural areas.

**Table 10.2** Number of antenatal care visits and timing of first visit

Percent distribution of ever-married women who had a live birth in the five years preceding the survey by the number of antenatal care (ANC) visits for the most recent birth and the timing of the first visit, according to urban-rural residence, Turkey 2003

Number and timing of ANC visits	Urban	Rural	Total
<b>Number of ANC visits</b>			
None	11.6	34.2	18.6
1	5.8	11.2	7.5
2-3	17.8	21.5	18.9
4+	63.7	32.5	53.9
Don't know/missing	1.1	0.6	0.9
Total	100.0	100.0	100.0
<b>Number of months pregnant at time of first ANC visit</b>			
No antenatal care	11.6	34.2	18.6
<4	66.5	37.8	57.5
4-5	13.5	14.6	13.8
6-7	6.2	9.6	7.2
8+	2.0	2.9	2.3
Don't know/missing	0.3	0.9	0.5
Total	100.0	100.0	100.0
<b>Median months pregnant at first visit (for those with ANC)</b>	2.6	3.5	2.8
Number of women	2,172	992	3,164

### 10.3 Components of Antenatal Care

Pregnancy complications are an important source of maternal and child mortality and morbidity. Thus, the effectiveness of ANC to ensure safe motherhood depends on the tests and measurements done during the checkups. In TDHS-2003, information was collected about the components of the ANC among women who received ANC for the most recent birth in the five years preceding the survey.

Among the most recent births in the last five years that involved some type of antenatal care, three in four women reported that they had their weight measured, while only 31 percent had their height measured as a part of the ANC checkup (Table 10.3). Eighty-nine percent of the mothers had their blood pressure measured, which is one of the most important that a woman receives during the ANC. Urine and blood sample were taken for 73 and 77 percent of women respectively. More than 90 percent of women reported that ultrasound was performed and the heartbeat of the baby was listened to. Women who had an internal examination and had their abdomen measured are 34 and 46 percent respectively.

Table 10.3 Components of antenatal care

Percentage of ever-married women with a live birth in the five years preceding the survey who received antenatal care for the most recent birth by content of antenatal care, and percentage of ever-married women with a live birth in the five years preceding the survey who received iron tablets or syrup during the most recent pregnancy, according to background characteristics, Turkey 2003

Background characteristic	Weight measured	Height measured	Blood pressure measured	Blood sample taken	Urine sample taken	Abdomen measured	Baby's heart-beat	Ultra-sound	Internal examination	Number of women receiving ANC	Received iron tablets or syrup	Number of women
<b>Age at birth</b>												
<20	71.6	24.5	82.4	75.3	69.7	42.5	90.2	90.5	32.7	279	64.5	326
20-34	76.8	32.2	89.5	77.8	73.3	46.1	92.0	90.4	33.3	2,067	66.7	2,523
35-49	64.1	29.5	88.2	70.4	69.9	52.7	86.6	90.7	36.8	221	45.8	316
<b>Birth order</b>												
1	83.2	36.1	90.5	86.0	81.2	48.3	93.4	94.6	41.4	930	77.2	1,000
2-3	77.1	30.2	89.5	74.8	69.6	46.3	92.1	89.9	29.3	1,232	68.1	1,465
4-5	56.7	23.9	83.2	63.0	61.1	45.4	88.5	83.7	30.0	267	46.0	417
6+	39.3	19.2	78.0	61.2	63.8	34.5	75.9	80.3	25.3	138	26.8	283
<b>Residence</b>												
Urban	78.7	32.8	90.1	80.0	76.8	47.2	92.5	93.4	35.6	1,917	71.4	2,172
Rural	64.6	26.2	84.2	67.6	60.3	43.7	87.9	81.8	27.5	650	49.1	992
<b>Region</b>												
West	84.2	34.5	91.1	83.3	78.5	52.4	94.9	94.4	40.0	1,022	76.5	1,119
South	76.3	33.8	93.2	73.0	66.9	40.7	91.3	89.6	26.0	362	67.8	426
Central	78.9	32.6	89.0	79.7	73.4	45.8	93.1	87.3	33.9	558	65.7	673
North	68.1	23.5	86.1	80.3	78.5	47.1	95.2	91.0	26.7	164	71.2	192
East	52.0	22.1	79.7	60.9	61.0	37.6	79.8	86.0	27.1	461	41.6	754
<b>NUTS 1 Region</b>												
Istanbul	79.9	25.4	90.5	82.4	79.3	51.8	93.2	97.9	40.0	490	75.3	537
West Marmara	93.2	42.3	96.4	85.7	74.9	54.6	96.9	93.6	33.1	99	83.9	108
Aegean	86.6	49.7	91.3	85.2	76.4	54.4	96.1	86.9	46.2	290	68.5	330
East Marmara	87.7	29.9	89.8	85.0	83.1	45.2	96.5	93.1	37.3	236	78.9	260
West Anatolia	78.7	30.6	90.3	82.3	77.2	44.8	92.7	91.3	34.8	254	67.1	296
Mediterranean	76.3	33.8	93.2	73.0	66.9	40.7	91.3	89.6	26.0	362	67.8	426
Central Anatolia	74.1	36.7	82.9	70.3	63.2	53.5	91.5	82.7	25.5	148	64.3	185
West Black Sea	71.6	27.0	91.1	78.0	72.2	47.2	94.2	88.1	30.7	138	70.4	166
East Black Sea	69.8	26.2	85.2	79.8	79.8	42.0	96.4	91.5	25.4	88	72.5	102
Northeast Anatolia	61.7	18.4	88.6	61.5	60.0	44.0	84.7	83.2	29.3	75	32.3	131
Central East Anatolia	56.9	27.5	81.5	66.8	71.3	42.2	76.2	82.0	28.1	120	38.3	212
Southeast Anatolia	47.1	20.8	76.5	58.0	56.7	33.8	80.0	88.6	26.0	267	46.3	410
<b>Education</b>												
No education/Primary incomplete	43.8	20.3	76.9	55.5	55.8	37.4	77.7	77.9	30.0	377	32.6	696
First level primary	75.6	28.5	87.4	75.9	70.9	46.1	92.1	90.8	31.4	1,409	67.4	1,665
Second level primary	80.3	31.0	94.6	83.4	76.0	41.5	94.3	92.5	32.4	246	83.4	260
High school and higher	93.5	45.6	97.0	91.4	87.5	55.2	97.5	97.5	42.3	536	86.8	543
<b>Total</b>	<b>75.1</b>	<b>31.1</b>	<b>88.6</b>	<b>76.9</b>	<b>72.6</b>	<b>46.3</b>	<b>91.3</b>	<b>90.5</b>	<b>33.5</b>	<b>2,567</b>	<b>64.4</b>	<b>3,164</b>

Women age 20-34 were more likely than older or younger women to receive all components of ANC except an ultrasound examination, abdominal measurement, and an internal examination. An inverse relationship is observed with an increase in the birth order. Women who were pregnant with their first child were more likely to receive all components of ANC. A similar pattern is seen by urban-rural residence, in which urban women were more likely than their rural counterparts to receive the components of ANC.

Regional variations in the components of ANC are marked. In general, women living in the West, especially those living in West Marmara, received the ANC components more often than women living in other regions. However, women living in the East Region had the lowest percentages for the components of ANC among all regions. Among NUTS 1 regions the lowest percentages for most of the components of antenatal care are observed for women living in the Southeast. However, listening to baby's heartbeat and performance of ultrasound are lowest in the Central East Anatolia, whereas measurement of height and receiving iron tablets are lowest in the Northeast.

Women with higher education were more likely to have received all routine components of ANC than less educated women. For instance, more than 90 percent of women with high school and higher level of education had their weight and blood pressure measured, blood sample taken, baby's heartbeat listened to and were examined through ultrasound during their most recent birth in the five years prior to the survey. Unfortunately, women who had no education or did not complete primary education constitute the group with the lowest percentages benefiting from the components of ANC. Even a substantial difference can be observed in favor of women with at least a first level primary education in receiving the tests, measurements and other components of ANC compared with that of the women who have less than primary education.

All respondents who gave birth in the five years preceding the survey, regardless of whether or not they received ANC were asked if they received iron tablets or syrup during the last pregnancy. Sixty-four percent of the women indicated that they received iron tablets or syrup.

#### **10.4 Place of Delivery and Assistance during Delivery**

Hygienic conditions during delivery and proper medical attention reduce the health risks to mothers and children. The TDHS-2003 collected information on the place of delivery and the person assisting delivery for all children born in the five years preceding the survey. Overall, 78 percent of all births were delivered at a health facility (Table 10.4), representing a 5 percentage points increase (from 73 percent) in the level since 1998. Public sector health facilities were preferred for delivery to a much greater extent (65 percent), than privately run health facilities (13 percent). Home deliveries constitute one fifth of the births in the five years preceding the survey.

**Table 10.4 Place of delivery**

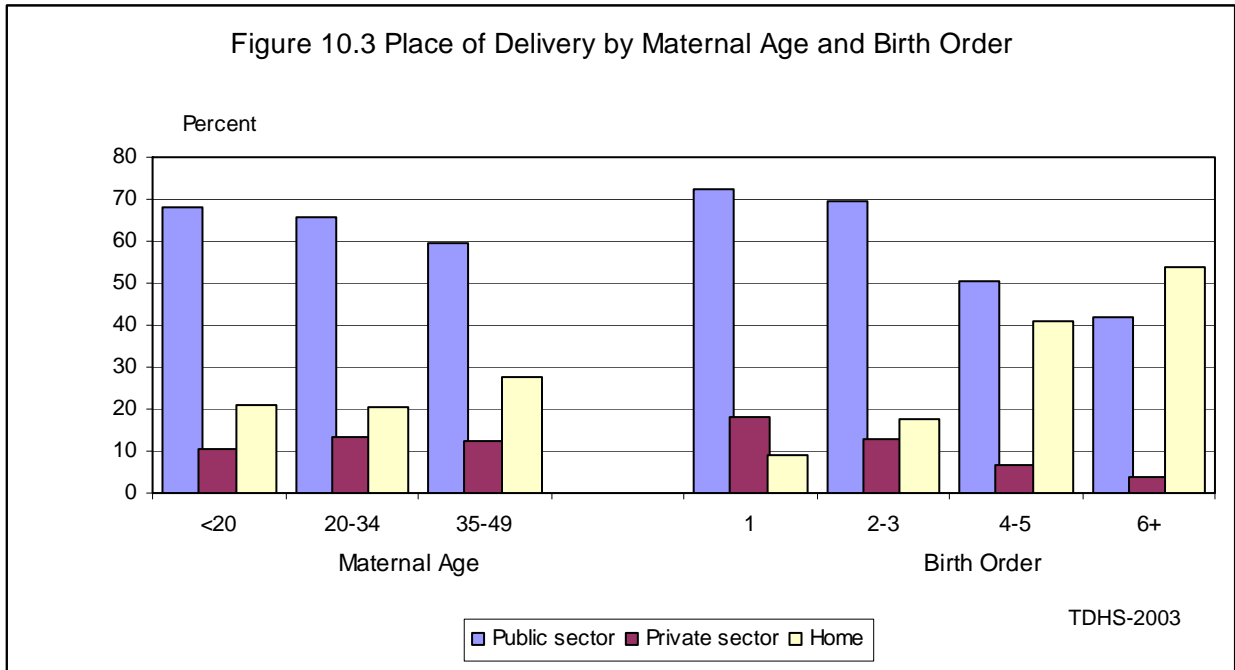
Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Turkey 2003

Background characteristic	Health facility		Home	Other	Missing	Total	Number of births
	Public sector	Private sector					
<b>Age at birth</b>							
<20	68.0	10.6	20.8	0.6	0.0	100.0	518
20-34	65.6	13.3	20.6	0.3	0.3	100.0	3,257
35-49	59.5	12.5	27.7	0.3	0.0	100.0	357
<b>Birth order</b>							
1	72.6	18.2	9.2	0.0	0.0	100.0	1,397
2-3	69.4	12.7	17.4	0.3	0.3	100.0	1,796
4-5	50.6	6.7	41.0	1.0	0.8	100.0	532
6+	41.8	3.9	53.6	0.6	0.0	100.0	407
<b>Residence</b>							
Urban	68.2	17.4	14.1	0.2	0.2	100.0	2,722
Rural	59.9	4.4	35.0	0.5	0.4	100.0	1,410
<b>Region</b>							
West	62.5	29.0	8.1	0.2	0.1	100.0	1,342
South	70.4	8.1	20.6	0.4	0.5	100.0	557
Central	85.7	2.5	10.9	0.6	0.3	100.0	813
North	83.7	1.6	13.3	0.6	0.9	100.0	252
East	48.0	6.4	45.5	0.1	0.0	100.0	1,168
<b>NUTS 1 Region</b>							
İstanbul	43.7	48.2	8.0	0.0	0.0	100.0	643
West Marmara	90.7	5.8	3.5	0.0	0.0	100.0	124
Aegean	80.7	8.7	10.6	0.0	0.0	100.0	392
East Marmara	80.0	12.0	5.8	1.3	0.9	100.0	328
West Anatolia	87.2	2.8	9.2	0.8	0.0	100.0	349
Mediterranean	70.4	8.1	20.6	0.4	0.5	100.0	557
Central Anatolia	77.7	3.3	18.3	0.0	0.7	100.0	232
West Black Sea	91.0	1.6	5.9	0.9	0.5	100.0	202
East Black Sea	77.2	1.7	19.9	0.3	0.9	100.0	137
Northeast Anatolia	58.0	7.2	34.8	0.0	0.0	100.0	185
Central East Anatolia	46.4	2.7	50.9	0.0	0.0	100.0	314
Southeast Anatolia	46.0	7.9	45.9	0.2	0.0	100.0	670
<b>Education</b>							
No education/Primary incomplete	42.8	5.5	51.1	0.4	0.2	100.0	1,099
First level primary	74.5	11.7	13.2	0.3	0.2	100.0	2,112
Second level primary	69.5	23.8	6.3	0.1	0.3	100.0	307
High school and higher	71.9	24.9	2.7	0.2	0.3	100.0	615
<b>Antenatal care visits<sup>1</sup></b>							
None	45.0	4.9	49.5	0.7	0.0	100.0	590
1-3	71.6	8.1	19.7	0.6	0.0	100.0	838
4+	75.0	20.7	4.2	0.0	0.0	100.0	1,706
Don't know/missing	(67.3)	(13.1)	(2.0)	(0.0)	(17.6)	100.0	30
<b>Total</b>	<b>65.3</b>	<b>12.9</b>	<b>21.2</b>	<b>0.3</b>	<b>0.2</b>	<b>100.0</b>	<b>4,132</b>

<sup>1</sup>Includes only the most recent birth in the five years preceding the survey.

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases.

Younger women (less than age 35) are more likely to deliver at a health facility (79 percent) than older women (72 percent). Likewise, lower birth order of the child is associated with greater likelihood of delivery at a health facility (Figure 10.4). The percentage of women delivering at a health facility declines as the birth order increases. For instance, 91 percent of women deliver their first child at a health facility, which is twice the woman with birth order six or more. The number of antenatal care visits is also positively associated with health facility delivery. Ninety-six percent of the most recent deliveries with more than four ANC visits have been delivered at a health facility while only half of the deliveries without any ANC visit took place at a health institution.



The level of education is strongly related to the utilization of health institutions for delivery. The proportion of births delivered in a health facility increases from 48 percent among births to women with no education to 97 percent among births to women with high school or higher level education. Furthermore, more than half of the women with either no education or less than primary education delivered at home. The results indicate a preference towards the private sector as the women’s level of education increases. For instance, one-fourth of the deliveries whose mothers have at least secondary level education are delivered at a health facility run by the private sector, compared with 6 percent of deliveries whose mothers have no education.

There are apparent regional and residential differences. A child born in an urban area is 1.3 times more likely to have been delivered at a health facility than a rural child. In all regions except the East region, where nearly half of the births took place at home, the majority of births are delivered in health facilities. The West region exhibits the highest percentage (92 percent) for the deliveries that took place at a health institution, followed by the Central region (88 percent). The West region is dissimilar in terms of utilizing the health facilities of the private sector; in this region 3 in every 10 deliveries took place at the private



sector which is more than twice the national average. Furthermore, in İstanbul, the share of the private sector (48 percent) is more than that of the public sector (44 percent). Unlike İstanbul, the majority of the births (91 percent) are delivered at health institutions of the public sector in the West Marmara and West Black Sea regions.

The type of assistance a woman receives during the birth of her child depends to great extent on the place of delivery. Births that are delivered outside the health facility are much less likely to receive assistance from a doctor or other trained health professional. The proportion of all births delivered with the assistance of a doctor or trained health personnel is 83 percent (Table 10.5).

Maternal age and child's birth order are associated with type of assistance at delivery. Older women and women who have already had a number of births are less likely to receive assistance from medical personnel. Mother's education is also closely tied to medical supervision at delivery. Almost all women with high school or more education received medical assistance at delivery.

Assistance from medical personnel during delivery is higher than the national average in all regions except the East. In the West region almost all deliveries are attended by a health professional. In addition to the regional and residential variation in assistance during delivery, there are differences in the percentage of deliveries assisted by a doctor. For instance, in the East region, where medical personnel assisted 60 percent of the deliveries, doctors assisted with 21 percent of the births. The likelihood of delivery under a doctor's supervision is 1.9 times greater for urban women compared to rural women. Traditional birth attendants assisted with the 9 percent of all deliveries. However, older women, women with birth order 6 or more, women living in rural areas and in the East –in particular Southeast and Central East Anatolia- and women who do not have education are more likely to receive delivery assistance from traditional birth attendants with percentages higher than the national average.

Table 10.5 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, according to background characteristics, Turkey 2003

Background characteristic	Doctor	Nurse/ midwife	Traditional birth attendant	Relative/ other	No one	Don't know/ missing	Total	Number of births
<b>Age at birth</b>								
<20	40.2	42.7	8.2	7.7	1.2	0.0	100.0	518
20-34	47.8	35.8	8.5	7.2	0.3	0.4	100.0	3,257
35-49	46.1	31.6	11.9	8.9	1.4	0.0	100.0	357
<b>Birth order</b>								
1	60.2	33.7	3.9	2.1	0.1	0.0	100.0	1,397
2-3	48.1	38.7	6.7	5.6	0.6	0.3	100.0	1,796
4-5	26.8	38.1	17.5	15.5	0.7	1.4	100.0	532
6+	20.2	32.4	23.0	22.7	1.6	0.1	100.0	407
<b>Residence</b>								
Urban	55.6	34.7	4.8	4.3	0.4	0.2	100.0	2,722
Rural	29.5	39.4	16.5	13.3	0.8	0.5	100.0	1,410
<b>Region</b>								
West	66.0	29.3	1.2	3.0	0.1	0.3	100.0	1,342
South	40.1	48.7	7.3	3.2	0.4	0.5	100.0	557
Central	56.9	34.1	2.5	5.7	0.4	0.3	100.0	813
North	45.2	41.3	7.9	3.8	1.0	0.9	100.0	252
East	20.9	38.8	22.6	16.4	1.0	0.2	100.0	1,168
<b>NUTS 1 Region</b>								
İstanbul	83.1	12.2	1.7	2.5	0.3	0.3	100.0	643
West Marmara	52.2	45.6	0.6	1.6	0.0	0.0	100.0	124
Aegean	53.1	41.5	0.6	4.8	0.0	0.0	100.0	392
East Marmara	51.0	43.4	0.8	3.5	0.3	0.9	100.0	328
West Anatolia	68.2	24.8	1.8	4.7	0.5	0.0	100.0	349
Mediterranean	40.1	48.7	7.3	3.2	0.4	0.5	100.0	557
Central Anatolia	37.7	48.3	6.2	6.7	0.4	0.7	100.0	232
West Black Sea	50.6	42.7	1.8	3.4	1.0	0.5	100.0	202
East Black Sea	44.0	36.7	11.9	6.3	0.3	0.9	100.0	137
Northeast Anatolia	20.4	49.5	14.7	14.2	1.2	0.0	100.0	185
Central East Anatolia	22.0	31.1	25.6	20.7	0.6	0.0	100.0	314
Southeast Anatolia	20.6	39.5	23.4	15.0	1.2	0.3	100.0	670
<b>Education</b>								
No education/Prim. incomplete	21.1	33.8	23.0	20.6	0.9	0.6	100.0	1,099
First level primary	49.2	41.9	4.5	3.6	0.5	0.2	100.0	2,112
Second level primary	57.9	38.5	2.0	0.9	0.3	0.3	100.0	307
High school and higher	78.3	20.2	1.1	0.2	0.0	0.3	100.0	615
Total	46.7	36.3	8.8	7.4	0.5	0.3	100.0	4,132

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation.

## 10.5 Characteristics of Delivery

Table 10.6 indicates that, according to the mother's reports, 21 percent of babies born in Turkey in the five years preceding the survey were delivered by caesarean section. This

percentage confirms that a major increase of 7 percentage points have taken place (from 19 percent) in caesarean section since 1998. Caesarean sections are more common among births to older women, women with lower birth orders, women residing in urban areas and in the West and North regions, and more educated women. It is also noteworthy that 3 in every 10 first births in the five-year period preceding the survey were delivered by caesarean section. The prevalence of caesarean sections is above 30 percent in İstanbul, in the West Marmara and East Black Sea regions

In TDHS-2003, respondents were asked whether their baby had been weighed at birth, and if so, how much the baby weighed. For 70 percent of the babies born in the five years preceding the survey, a birth weight was reported. A majority of the babies (62 percent) are reported to have weighed at least 2.5 kg or more. However, among births for which a birth weight was reported, 11 percent (8 percent of all births) were reported to have a weight less than 2.5 kilograms, the cut-off point below which a baby is considered to be low birth weight. Children classified as low-birth-weight births, are considered to have a higher than average risk of early mortality. Babies were more likely to be classified as low birth weight in the Aegean, Mediterranean, and West and East Black Sea regions compared to other regions.

The subjective assessment of the mother about the size of the baby at birth was also taken. Mothers' evaluation of the size of the baby at birth is also shown in Table 10.6. According to the mothers' subjective evaluation of birth size, most of the babies (71 percent) are reported as average or larger, 12 percent of all births were reported to be very small and 17 percent were considered to be smaller than average. Relatively higher percentages are observed for babies regarded as very small among births to younger and older women, births with birth order above four and births to women without education.

Regional estimates of subjective assessment of 'very small' vary from a low of 5 percent in the West Anatolia to a high of 19 percent in Central East and Southeast Anatolia. It is also noteworthy that one-fourth of the mothers in the West Black Sea region reported the babies born in the five years preceding the survey as 'smaller than average'.

Table 10.6 Delivery characteristics

Percentage of live births in the five years preceding the survey delivered by caesarean section, and percent distribution by birth weight and by mother's estimate of baby's size at birth, according to background characteristics, Turkey 2003

Background characteristic	Delivery by Caesarean section	Birth weight					Total	Size of child at birth					Number of births
		Not weighed	Less than 2.5 kg	2.5 kg or more	Don't know/missing	Very small		Smaller than average	Average or larger	Don't know/missing	Total		
<b>Age at birth</b>													
<20	11.5	28.3	9.8	58.7	3.2	100.0	13.3	18.6	67.4	0.6	100.0	518	
20-34	22.5	23.6	7.5	63.9	5.1	100.0	10.7	16.2	72.3	0.8	100.0	3,257	
35-49	24.0	32.1	8.7	52.9	6.3	100.0	16.1	18.8	64.6	0.5	100.0	357	
<b>Birth order</b>													
1	28.8	12.2	10.0	73.5	4.2	100.0	11.3	19.3	68.8	0.6	100.0	1,397	
2-3	21.5	20.5	6.6	68.9	4.0	100.0	8.6	14.6	76.0	0.8	100.0	1,796	
4-5	11.2	45.4	8.3	39.6	6.7	100.0	16.7	16.1	65.9	1.3	100.0	532	
6+	7.2	61.0	5.3	24.3	9.4	100.0	18.1	17.9	63.8	0.2	100.0	407	
<b>Residence</b>													
Urban	25.6	16.4	7.8	71.8	4.1	100.0	10.1	15.1	74.0	0.8	100.0	2,722	
Rural	12.9	41.3	8.0	44.0	6.6	100.0	14.1	19.9	65.4	0.6	100.0	1,410	
<b>Region</b>													
West	30.7	6.5	7.9	83.6	2.0	100.0	7.3	13.1	79.1	0.5	100.0	1,342	
South	20.7	19.8	11.6	62.9	5.7	100.0	16.2	14.0	68.3	1.4	100.0	557	
Central	20.9	11.6	9.1	76.2	3.2	100.0	6.1	22.2	70.3	1.4	100.0	813	
North	31.1	14.3	10.2	71.9	3.6	100.0	12.5	16.2	70.5	0.9	100.0	252	
East	8.7	60.0	4.7	25.9	9.4	100.0	17.5	18.6	63.8	0.2	100.0	1,168	
<b>NUTS 1 Region</b>													
İstanbul	34.3	6.5	9.6	83.1	0.8	100.0	8.2	14.3	77.1	0.4	100.0	643	
West Marmara	39.7	3.5	7.3	84.2	5.0	100.0	10.2	10.8	79.0	0.0	100.0	124	
Aegean	27.8	7.0	11.9	78.4	2.7	100.0	5.8	21.7	72.3	0.3	100.0	392	
East Marmara	22.3	8.0	5.1	84.9	2.0	100.0	5.6	8.4	84.6	1.4	100.0	328	
West Anatolia	20.6	9.7	6.4	80.6	3.4	100.0	5.2	19.8	74.4	0.6	100.0	349	
Mediterranean	20.7	19.8	11.6	62.9	5.7	100.0	16.2	14.0	68.3	1.4	100.0	557	
Central Anatolia	16.4	16.7	5.7	73.2	4.4	100.0	9.1	16.9	72.6	1.4	100.0	232	
West Black Sea	27.8	6.1	10.5	80.2	3.2	100.0	7.0	24.8	65.6	2.6	100.0	202	
East Black Sea	30.9	23.3	10.6	61.8	4.3	100.0	15.1	14.4	69.6	0.9	100.0	137	
Northeast Anatolia	9.8	49.8	7.3	38.5	4.4	100.0	10.3	17.5	71.8	0.3	100.0	185	
Central East Anatolia	7.4	60.4	3.8	27.9	7.9	100.0	19.2	16.6	64.1	0.0	100.0	314	
Southeast Anatolia	9.0	62.7	4.4	21.4	11.5	100.0	18.6	19.8	61.4	0.3	100.0	670	
<b>Education</b>													
No education/Primary incom.	7.6	60.3	6.3	24.3	9.1	100.0	17.7	19.0	62.7	0.6	100.0	1,099	
First level primary	19.9	15.8	9.3	70.4	4.5	100.0	10.4	17.0	71.5	1.0	100.0	2,112	
Second level primary	24.6	6.5	5.7	86.6	1.2	100.0	9.2	12.9	77.4	0.5	100.0	307	
High school/higher	48.5	1.9	6.7	90.4	0.9	100.0	5.0	13.5	81.2	0.3	100.0	615	
<b>Total</b>	<b>21.2</b>	<b>24.9</b>	<b>7.9</b>	<b>62.3</b>	<b>4.9</b>	<b>100.0</b>	<b>11.5</b>	<b>16.7</b>	<b>71.1</b>	<b>0.7</b>	<b>100.0</b>	<b>4,132</b>	



*Sabahat Tezcan and Elif Kurtuluş Yiğit*

This chapter presents findings concerning vaccination of children of 12-23 months, acute respiratory infection among children under age five and smoking status of ever-married women. Data were obtained for all live births that occurred in the five years preceding the survey.

### **11.1 Vaccination of Children**

Universal immunization of children under one year of age against the six vaccine-preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis, and measles) is one of the most cost-effective programs in reducing infant and child morbidity and mortality. To be fully immunized, a child should receive the following vaccinations before the first birthday: one dose of BCG, three doses of DPT and polio, and one dose of measles vaccine. BCG, which is given at second month of life or at first clinical contact, protects against tuberculosis. DPT protects against diphtheria, pertussis, and tetanus. DPT and polio (OPV) each require three vaccinations at approximately six, ten and 14 weeks of age; however, since this regime is not always followed, emphasis is given on getting all three doses by the time the child reaches 12 months of age. Measles should be given at or soon after the child reaches nine months. It is recommended that children receive the complete schedule of vaccinations before 12 months of age. Children who receive protection against all six vaccine-preventable illnesses are considered fully vaccinated.

In TDHS-2003, information on vaccination status was collected for all children born in the five years preceding the survey. However, the data presented here are restricted to children who were alive at the time of the survey fieldwork.

To obtain vaccination data for each eligible child, mothers were asked whether they had a vaccination card for the child, and if so, to show the card to the interviewer. The dates of the vaccinations were copied from the card to the questionnaire. Mothers were also asked whether the child has been given any vaccination not recorded on the card. If the vaccination card was not available for the child, then the mother was asked a number of questions in order to determine the vaccination status of the child for each specific vaccine. In case of DPT and polio, the mother was asked to report the number of doses of the vaccine that the child had received.

#### **11.1.1 Coverage of Children Age 12-23 Months**

Information on vaccination coverage is presented in Table 11.1 according to the source of information used to determine coverage, i.e., the child's vaccination card or the

mother's report. Data are presented for children age 12-23 months, by which age the child should be fully vaccinated.

The information was gathered from a vaccination card in the case of 54 percent of children while mothers gave the information for the remaining cases. For children whose information was based on the mother's report, the proportion vaccinated during the first year of life (12 percent) is lower than that for children with a written record of vaccination (43 percent). The OPV coverage rate for children without a written record is somewhat higher than that of the DPT coverage rate.

**Table 11.1 Vaccinations by source of information**

Percentage of children 12-23 months who have received specific vaccines at any time before the survey, by source of information, and the percentage vaccinated by 12 months of age, Turkey 2003

Source of information	Percentage of children receiving:										Number of children
	BCG	DPT1	DPT2	DPT3	Polio1	Polio2	Polio3	Measles	All <sup>1</sup>	None	
<b>Vaccinated at any time before the survey</b>											
Vaccination card	51.5	51.9	50.7	48.5	52.2	50.8	48.4	48.9	42.5	0.0	402
Mother's report	36.2	36.6	25.1	15.9	42.5	32.0	20.7	30.5	11.7	2.8	346
Either source	87.7	88.5	75.8	64.4	94.7	82.8	69.1	79.4	54.2	2.8	749
<b>Vaccinated by 12 months of age<sup>2</sup></b>											
	86.2	86.9	74.0	62.2	92.5	80.4	66.5	71.2	48.0	4.4	749

<sup>1</sup> Children who are fully vaccinated (i.e., those who have received BCG, measles, and three doses of DPT and polio).  
<sup>2</sup> For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

Taking into account both the card information and the mother's report, Table 11.1 shows that 54 percent of the children had received all of the recommended eight vaccines at some time before the survey. Only 3 percent had not received any vaccination at all. For the remaining 43 percent, the complete schedule of vaccinations was not received. The percentage of children who were fully vaccinated by 12 months of age was 48 percent.

### 11.1.2 Coverage Rates by Background Characteristics

Vaccination coverage rates for children in the 12-23 month age group are presented in Table 11.2 by background characteristics. There are definite differences in vaccination coverage by place of residence. The percentages of children receiving the first dose of OPV are equal (95 percent) for children living in urban and rural residences. However the percentages receiving the second and third doses of OPV fall to 78 and 53 for rural children compared with 85 and 77 percent of urban children. The three DPT doses are higher for children of urban residences than for children of rural residences. As a result of high drop-out rates, coverage in rural children for the third dose of DPT falls to 48 percent compared with 73 percent of urban children. BCG and measles coverage rates are also lower for rural children than for urban children. Overall, 63 percent of the urban children are fully vaccinated which is much higher than the proportion for rural children (37 percent).

Considering regional differences, the percentage fully vaccinated is lowest in the East (35 percent). In all other regions, at least six in ten children are fully vaccinated. The data in

Table 11.2 also verify the fact that drop-out rates for DPT and Polio are markedly high in the East compared to other regions. The proportion of children whose mothers showed a vaccination card also was significantly lower in the East (31 percent) than other regions.

Mother's educational status is related to the likelihood that a child will be vaccinated. The percentage of children who are fully vaccinated varies from 26 percent among children whose mothers have no education to 69 percent among children whose mothers have at least high school education. The DPT/OPV drop-out rates are higher for children of mothers with no education than for other children; for example, DPT coverage rates among children of women with no education fall from 63 percent in the case of the first dose to 35 percent for the third dose. Only 45 percent of children of women with no education received a measles vaccination, and only 64 percent received a BCG vaccination.

Background characteristic	Percentage of children receiving:										Percentage with vaccination card	Number of children
	BCG	DPT			Polio			Measles	All <sup>1</sup>	None		
		1	2	3	1	2	3					
<b>Child's sex</b>												
Male	89.0	87.4	78.0	66.3	95.8	85.1	73.9	80.0	57.7	2.7	56.6	381
Female	86.4	89.6	73.5	62.4	93.6	80.4	64.0	78.8	50.6	2.9	50.7	367
<b>Birth order</b>												
1	92.3	92.0	83.5	72.9	96.0	87.5	78.1	84.4	62.4	1.0	65.1	253
2-3	92.0	93.5	79.6	69.8	95.7	85.0	71.2	86.5	59.8	2.1	54.6	340
4-5	83.8	78.4	59.1	41.0	93.8	71.9	57.0	68.5	33.8	3.2	30.7	93
6+	52.2	61.8	48.7	35.0	85.6	67.5	38.8	36.5	21.5	13.0	37.6	63
<b>Residence</b>												
Urban	92.6	91.2	80.9	72.6	94.7	85.3	76.9	84.4	62.9	2.4	63.2	503
Rural	77.7	82.9	65.4	47.5	94.7	77.5	53.0	69.1	36.5	3.5	34.4	246
<b>Region</b>												
West	95.5	94.3	81.3	72.6	95.2	87.4	79.1	88.9	63.0	1.4	65.1	271
South	95.2	96.5	83.3	71.4	98.8	84.3	70.6	81.1	60.2	0.0	62.4	89
Central	95.6	93.8	83.0	72.1	96.4	86.0	73.6	90.3	61.0	1.7	57.5	138
North	(91.5)	(95.8)	(85.6)	(70.7)	(93.8)	(85.8)	(71.0)	(84.5)	(60.1)	(2.8)	(64.7)	41
East	68.6	72.5	58.9	44.4	91.4	73.5	52.2	58.2	34.8	6.5	30.8	210
<b>Selected NUTS 1 Region</b>												
Istanbul	92.3	92.3	77.5	72.5	89.7	83.6	78.2	85.8	62.3	3.0	70.4	127
Southeast Anatolia	70.9	73.8	57.2	43.4	93.0	69.8	52.2	56.7	35.0	5.5	32.9	118
<b>Education</b>												
No education/Prim. incomp.	63.8	62.9	48.9	35.0	88.2	70.6	44.6	45.0	26.1	9.5	31.6	173
First level primary	93.7	94.7	79.1	69.3	97.0	85.4	73.9	88.9	60.9	1.1	55.4	389
Second level primary	98.2	100.0	90.5	72.9	93.1	83.1	70.0	93.1	61.2	0.0	67.7	53
High school and higher	97.2	98.9	95.3	84.8	97.2	90.7	86.5	90.8	68.5	0.0	72.1	133
<b>Total</b>	<b>87.7</b>	<b>88.5</b>	<b>75.8</b>	<b>64.4</b>	<b>94.7</b>	<b>82.8</b>	<b>69.1</b>	<b>79.4</b>	<b>54.2</b>	<b>2.8</b>	<b>53.7</b>	<b>749</b>



A child's birth order is also related to vaccination coverage rates. Children of high birth order tend to have lower coverage than children of lower birth order. The percentage fully vaccinated among first order births is 62 percent compared with 34 percent of children of birth order 4-5, and 22 percent for children of birth order six or more. There is a difference between vaccination coverage among male and female children in favor of males.

### 11.1.3 Vaccination in First Year of Life by Current Age

Table 11.3 presents information on children 12-59 months and shows the percentage of children who have a vaccination record as well as the percentage who have received each vaccine during the first year of life according to information from the vaccination card or mother's recall. As was the case in earlier tables, the distribution of vaccinations during the first year of life for children whose information was based on the mother's recall was assumed to be the same as that for children for whom a vaccination record was available.

Table 11.3 Vaccinations in first year of life by current age					
Among children 12-59 months, the percentage with a vaccination card and the percentage who have received each vaccine before their first birthday, according to current age of the child, Turkey 2003					
Vaccine	Current age of child in months				All children 12-59 months
	12-23	24-35	36-47	48-59	
<b>Vaccination card seen by interviewer</b>	53.7	30.9	23.2	17.4	30.7
<b>Percentage vaccinated at 0-11 months<sup>1</sup></b>					
BCG	86.2	84.3	81.6	83.8	84.7
DPT 1	86.9	83.9	83.0	81.7	84.5
DPT 2	74.0	66.7	64.2	61.9	67.0
DPT 3	62.2	52.9	52.2	51.6	55.3
Polio 1	92.5	91.5	88.7	90.6	91.5
Polio 2	80.4	76.3	75.0	73.7	76.8
Polio 3	66.5	60.1	59.9	60.9	62.6
Measles	71.2	70.2	66.8	72.9	71.0
All vaccinations <sup>2</sup>	48.0	43.2	41.5	44.6	45.0
No vaccinations	4.4	7.1	9.7	7.6	6.6
<b>Number of children</b>	749	845	829	833	3,255

<sup>1</sup> Information was obtained either from a vaccination card or from the mother if there was no written record. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as that for children with a written vaccination record.

<sup>2</sup> Children who have received BCG, measles, and three doses each of DPT and polio vaccines

The proportion of children for whom vaccination cards were seen declines with increasing age of child, from 54 percent among children age 12-23 months to 17 percent among children age 48-59 months. This suggests that either there has been an increase in vaccination levels in the recent past or the mothers did not keep the vaccination cards for older children. Similarly, the proportion of children who had received each vaccine during the

first year of life are higher for children age 12-23 months than for children in the 24-35 and 36-47-month age groups.

## **11.2 Prevalence and Treatment of Acute Respiratory Infection and Fever**

Acute respiratory infection (ARI), primarily pneumonia, is a common cause of morbidity and mortality during infancy and childhood. ARI is still the most prevalent disease in Turkey among children under age five especially during winter months. Early diagnosis and prompt treatment with proper antibiotics can prevent a large proportion of these ARI deaths.

In the TDHS-2003, the prevalence of ARI was estimated by asking mothers whether their children below five years of age had been sick with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. For children who had experienced these symptoms, questions were asked about the type of the treatment given and use of health facility or health provider. It should be noted that morbidity data are subjective since the information is based on mother's perception of her child's illness without any medical diagnosis. Furthermore, the timing of the TDHS-2003 fieldwork should be taken into consideration when assessing these findings, since the fieldwork took place in the peak season for ARI, mainly between December 2003 and May 2004. As the prevalence of ARI is subject to seasonality, the results do not represent the average annual prevalence of ARI.

Table 11.4 shows the percentage of children under five years of age with ARI symptoms and percentage of children under five years with a fever during the two weeks preceding the survey. Since no distinction was made in the questionnaire for treatment sought for symptoms of ARI and fever, the table shows a single column for the percentage of children with symptoms of ARI and/or fever for whom treatment was sought. This table also includes an additional background characteristic for the mother -her smoking status- since smoking is known to cause and/or aggravate symptoms of ARI. This variable has no known relationship to fever and as such is not applicable for fever. Overall 29 percent of children had experienced ARI at some time in the two weeks preceding the survey. Children under two years of age, especially those 6-11 and 12-23 months old, are more likely than older children to have had ARI.

There is little variation in ARI prevalence by sex and residence. The prevalence of ARI is higher among children in the North and East (33 percent) and children whose mothers did not attend school (35 percent) and whose mothers smoke (31 percent) than among other children.

Regarding fever, 40 percent of the children had fever during the two weeks preceding the survey. The prevalence of fever was highest among children in 6-11 months (55 percent), children living in the East (50 percent), and children whose mothers did not attend school (51 percent).

**Table 11.4 Prevalence and treatment of symptoms of ARI and fever**

Percentage of children under five years who had a cough accompanied by short, rapid breathing (symptoms of ARI), percentage who had fever in the two weeks preceding the survey, and percentage with symptoms of ARI and/or fever for whom treatment was sought from a health facility or provider, by background characteristics, Turkey 2003

Background characteristic	Percentage of children with symptoms of ARI	Percentage of children with fever	Number of children	Among children with symptoms of ARI and/or fever, percentage for whom treatment was sought from a health facility/provider <sup>1</sup>	Number of children
<b>Age in months</b>					
<6	26.3	32.6	372	47.0	160
6-11	36.8	55.2	371	48.8	234
12-23	32.2	47.9	749	45.5	421
24-35	30.4	40.8	845	39.0	410
36-47	29.7	36.6	829	38.1	381
48-59	20.7	32.5	833	32.3	323
<b>Child's sex</b>					
Male	29.7	40.1	2,062	43.8	1,001
Female	27.8	40.2	1,987	37.9	928
<b>Residence</b>					
Urban	28.3	38.6	2,651	47.8	1,253
Rural	29.7	43.1	1,347	28.3	676
<b>Region</b>					
West	29.1	33.6	1,305	49.3	581
South	25.4	36.7	542	36.7	253
Central	23.3	38.0	791	47.7	354
North	33.0	43.7	242	42.9	124
East	32.9	50.0	1,118	30.6	617
<b>NUTS 1 Region</b>					
Istanbul	36.5	39.6	625	46.3	323
West Marmara	19.2	32.0	119	(56.8)	48
Aegean	25.3	27.3	383	57.2	145
East Marmara	16.3	27.3	317	46.4	110
West Anatolia	20.0	36.5	346	44.7	149
Mediterranean	25.4	36.7	542	36.7	253
Central Anatolia	34.7	45.8	221	46.4	119
West Black Sea	25.5	44.1	193	52.0	97
East Black Sea	37.7	42.1	133	37.7	68
Northeast Anatolia	31.1	50.7	176	27.8	99
Central East Anatolia	28.4	46.5	300	31.6	153
Southeast Anatolia	35.5	51.4	642	30.9	365
<b>Education</b>					
No education/Primary incom.	34.7	50.9	1,044	25.1	599
First level primary	29.1	38.7	2,051	45.5	982
Second level primary	22.6	33.2	302	56.1	127
High school and higher	20.5	29.5	601	55.4	221
<b>Mother's smoking status</b>					
Smokes cigarettes	31.3	NA	1,004	48.1	483
Does not smoke	28.0	NA	2,998	38.6	1,443
<b>Total</b>	<b>28.8</b>	<b>40.1</b>	<b>3,998</b>	<b>41.0</b>	<b>1,929</b>

ARI = Acute Respiratory Infection; NA = Not applicable

<sup>1</sup>Excludes pharmacy, shop, and traditional practitioner

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases.

Four in every ten children with ARI and/or fever episodes received some kind of treatment from a health facility or a health provider. The proportion for whom treatment was sought are highest for children in the first year of life (around 48 percent), for male children (44 percent), for children living in urban areas (48 percent), for children in the West region (49 percent), and for children whose mothers completed second level primary (56 percent) or high school and higher (55 percent).

### **11.3 Smoking Status of Mothers**

Cigarette smoking is hazardous to human health. Its use adversely affects women's health status and may affect children's health. During pregnancy its use increases the risk of having a small or low birth weight baby and may increase the susceptibility to acute respiratory illnesses among children. Table 11.5 ascertains the prevalence of smoking among women and frequency of cigarette smoking among women by background characteristics.

Among all ever-married women age 15-49, 28 percent reported that they smoke rarely or regularly. Looking at the age patterns, smoking is most common among women age 20-34. Urban women are more likely to smoke than rural women (33 percent and 15 percent, respectively). Women living in the West and those who have completed at least high school are more likely to smoke (32 and 44 percent respectively). According to maternity status, 15 percent of pregnant women and 20 percent of breastfeeding women report that they smoke regularly.

The majority of smokers age 35-49 smoke more than 10 cigarettes daily (52 percent). Smoking more than 10 cigarettes is most common among smokers living in the West (47 percent), and smokers with at least high school education (45 percent). Among pregnant women, 41 percent smoke 3-5 cigarettes, 14 percent smoke 6-9 cigarettes, and 15 percent smoke 10 or more cigarettes. Similarly among breastfeeding women, 29 percent smoke 3-5 cigarettes, 17 percent smoke 6-9 cigarettes, and 23 percent smoke 10 or more cigarettes daily.

A comparison of the TDHS-2003 results with the findings from the TDHS-1993 indicates that, in the last ten years, smoking has become more common among women. Overall, the proportion of ever-married women who smoke has risen by more than 50 percent, from 18 percent to the 28 percent.

Table 11.5 Use of smoking cigarettes

Percentage of ever-married women who smoke cigarettes rarely/regularly and percent distribution of cigarette smokers by number of cigarettes smoked per day, according to background characteristics, Turkey 2003

Background characteristic	Percentage who smoke cigarettes	Number of women	Number of cigarettes smoked per day						Don't know/missing	Total	Number of cigarette smokers
			0	1-2	3-5	6-9	10+				
<b>Age</b>											
15-19	16.5	238	(1.5)	(22.5)	(43.8)	(13.3)	(19.3)	(0.0)	100.0	39	
20-34	30.1	4,014	3.2	21.5	26.9	14.0	34.2	0.1	100.0	1,210	
35-49	25.7	3,824	2.1	17.4	18.0	10.6	51.8	0.1	100.0	984	
<b>Residence</b>											
Urban	32.8	5,752	2.1	17.8	22.0	13.1	44.8	0.1	100.0	1,885	
Rural	14.9	2,323	6.0	30.1	29.9	9.3	24.7	0.0	100.0	347	
<b>Region</b>											
West	32.3	3,286	1.7	17.1	22.0	12.5	46.7	0.0	100.0	1,063	
South	26.7	1,028	6.7	17.2	22.5	14.8	38.6	0.2	100.0	274	
Central	25.8	1,867	2.1	23.5	24.1	12.1	37.9	0.4	100.0	481	
North	21.5	590	3.8	28.6	25.7	9.6	32.4	0.0	100.0	127	
East	22.1	1,305	2.9	21.8	26.3	12.3	36.7	0.0	100.0	288	
<b>NUTS 1 Region</b>											
Istanbul	36.9	1,470	1.9	15.7	21.2	12.8	48.5	0.0	100.0	542	
West Marmara	30.5	348	1.8	14.6	30.1	11.2	42.3	0.0	100.0	106	
Aegean	25.7	1,157	1.8	21.6	18.1	12.9	45.6	0.0	100.0	297	
East Marmara	26.9	710	1.2	18.4	26.9	11.3	42.2	0.0	100.0	191	
West Anatolia	34.5	784	0.8	21.3	23.4	10.1	43.7	0.6	100.0	270	
Mediterranean	26.7	1,028	6.7	17.2	22.5	14.8	38.6	0.2	100.0	274	
Central Anatolia	20.5	471	2.5	27.7	24.0	16.5	29.3	0.0	100.0	97	
West Black Sea	20.1	513	5.7	26.5	22.9	12.1	32.8	0.0	100.0	103	
East Black Sea	21.8	291	5.0	30.1	31.4	8.8	24.8	0.0	100.0	63	
Northeast Anatolia	21.9	245	6.6	19.8	34.2	7.2	32.2	0.0	100.0	54	
Central East Anatolia	21.8	389	1.0	28.4	29.3	14.4	26.9	0.0	100.0	85	
Southeast Anatolia	22.3	671	2.7	18.8	21.7	13.0	43.8	0.0	100.0	150	
<b>Education</b>											
No education/Primary incom.	18.4	1,761	2.1	25.4	22.9	8.0	41.7	0.0	100.0	324	
First level primary	24.5	4,339	3.1	22.0	22.9	12.8	39.2	0.0	100.0	1,065	
Second level primary	40.1	601	2.4	9.8	27.1	16.5	43.5	0.7	100.0	241	
High school and higher	43.9	1,374	2.5	16.7	22.6	12.8	45.4	0.1	100.0	603	
<b>Maternity status</b>											
Pregnant	15.0	472	3.7	26.6	41.1	13.9	14.6	0.0	100.0	71	
Breastfeeding	19.6	929	4.5	26.1	29.4	17.3	22.7	0.0	100.0	182	
Not pregnant/breastfeeding	29.7	6,674	2.5	18.9	22.1	12.0	44.4	0.1	100.0	1,980	
<b>Total</b>	<b>27.6</b>	<b>8,075</b>	<b>2.7</b>	<b>19.7</b>	<b>23.3</b>	<b>12.5</b>	<b>41.7</b>	<b>0.1</b>	<b>100.0</b>	<b>2,233</b>	

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The TDHS-2003 obtained information relating to the nutritional status of children, including infant feeding practices, duration and intensity of breastfeeding, the types of the complimentary foods given, and whether or not a bottle with a nipple was used. To further assess the nutritional status of all children under the age of five and women age 15-49, anthropometric (height and weight) data were also collected.

Infant feeding practices affect the health of both the child and the mother. With respect to child, they relate directly to the nutritional status, which in turn influences the risk of morbidity and mortality of young children. In the case of the mother, breastfeeding has an effect on the period of postpartum amenorrhea, which in turn leads to longer birth intervals and lower fertility levels. The magnitude of the effects is influenced by both the duration and intensity of breastfeeding, and by the age at which the child receives supplemental foods and liquids.

Maternal nutrition status also has important implications for the health of the mother as well as that of the child. A woman who is in poor nutritional health has a greater risk of having an adverse pregnancy outcome and is more likely to give birth to underweight babies.

## **12.1 Initiation of Breastfeeding**

Breastfeeding of infants is among the most important factors contributing to the maintenance of growth. Breast milk contains all the nutrients needed by children in the first 4-6 months of life. Moreover, breast milk is clean and always available at just the right temperature, and it promotes a close mother-child relationship. In addition, it provides some immunity to disease through the mother's antibodies, helps in reducing the prevalence of nutritional deficiencies, and food-borne infections.

Table 12.1 shows the percentage of children born in the five years before the survey according to breastfeeding status and the timing of the initial breastfeeding by selected background characteristics. Breastfeeding is almost universal in Turkey; 97 percent of all children are breastfed for some period of time. Due to the large percentage of children ever breastfed, differentials in the proportion of children breastfed by background characteristics are quite small.

Table 12.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and among children ever breastfed, percentage who started breastfeeding within one hour and within one day of birth and percentage who received a prelacteal feed, by background characteristics, Turkey 2003

Background characteristic	Percentage ever breastfed	Number of children	Percentage breastfeeding:		Percentage who received a prelacteal feed <sup>2</sup>	Number of children ever breastfed
			Within 1 hour of birth	Within 1 day of birth <sup>1</sup>		
<b>Child's sex</b>						
Male	96.4	2,132	53.7	83.2	40.3	2,056
Female	97.3	2,000	54.2	84.0	38.4	1,946
<b>Residence</b>						
Urban	96.9	2,722	57.2	86.1	38.3	2,639
Rural	96.7	1,410	47.6	78.7	41.3	1,363
<b>Region</b>						
West	96.5	1,342	60.4	89.6	31.5	1,295
South	97.3	557	50.0	81.5	41.0	542
Central	96.9	813	63.2	87.0	35.3	787
North	96.6	252	60.8	86.9	27.6	244
East	97.1	1,168	40.6	74.7	52.8	1,134
<b>NUTS1 Region</b>						
Istanbul	96.8	643	57.8	88.6	35.4	622
West Marmara	96.9	124	69.8	91.5	28.7	120
Aegean	97.1	392	56.2	85.9	31.9	380
East Marmara	95.0	328	68.8	89.6	30.3	311
West Anatolia	98.4	349	66.1	90.1	31.7	344
Mediterranean	97.3	557	50.0	81.5	41.0	542
Central Anatolia	96.5	232	58.6	88.6	39.4	224
West Black Sea	93.6	202	62.3	87.3	24.0	189
East Black Sea	98.3	137	59.0	86.0	30.0	135
Northeast Anatolia	95.5	185	45.9	92.2	22.1	177
Central East Anatolia	98.6	314	36.3	73.9	48.4	309
Southeast Anatolia	96.8	670	41.2	70.4	63.3	648
<b>Education</b>						
No education/Primary incom.	97.1	1,099	39.1	73.3	51.2	1,067
First level primary	96.7	2,112	59.2	86.6	34.8	2,041
Second level primary	97.7	307	57.1	91.2	30.0	299
High school and higher	96.6	615	60.8	88.0	38.4	594
<b>Assistance at delivery</b>						
Health professional <sup>3</sup>	96.7	3,430	58.2	86.8	36.7	3,317
Traditional birth attendant	98.8	362	34.9	68.5	55.4	358
Other	96.2	305	31.3	68.7	51.6	294
No one	(93.8)	22	(46.2)	(85.0)	(40.2)	21
Missing	*	13	*	*	*	13
<b>Place of delivery</b>						
Health facility	96.6	3,234	58.5	86.8	36.3	3,124
At home	97.7	876	37.7	72.5	51.1	857
Other	*	13	*	*	*	12
Missing	*	9	*	*	*	9
<b>Total</b>	<b>96,8</b>	<b>4,132</b>	<b>53.9</b>	<b>83.6</b>	<b>39.4</b>	<b>4,002</b>

Note: Table is based on all births whether the children are living or dead at the time of interview.

<sup>1</sup> Includes children who started breastfeeding within one hour of birth.

<sup>2</sup> Children given something other than breast milk during the first three days of life before the mother started breastfeeding regularly.

<sup>3</sup> Doctor, nurse/midwife, or auxiliary midwife

Note: An asterisk indicates a figure is based on fewer than 25 unweighted cases. Parentheses indicate a figure is based on 25-49 unweighted cases.

Early initiation of breastfeeding is of benefit to both mother and infant. Suckling stimulates production of oxytocin, a hormone that causes the mother's uterus to contract. The first breast milk, colostrum, protects the newborn infant from infections because of its high concentration of antibodies. Information from the TDHS-2003 on the timing of initiation of breastfeeding for all children indicates that initiation to breastfeeding is rather late (Table 12.1). Only 54 percent of ever-breastfed children were started breastfeeding as early as within one hour of birth, and 16 percent are not put to the breast within 24 hours of their birth. These proportions are almost identical to those reported in the TDHS-1998 indicating that there has been little recent change in the overall patterns with respect to the initiation of breastfeeding.

Increases in the proportions of children for whom breastfeeding was initiated early occurred in the West, Central and North regions since 1998 (data not shown in tables). Despite the increases, marked variations in the timing of initiation of breastfeeding still remain across regions and education subgroups. The percentage of children who started breastfeeding within one hour of birth is highest in the Central region (63 percent) and lowest in the East region (41 percent). The percentage of children of whom breastfeeding was initiated within an hour of birth varies from 39 percent for births to mothers with no education to 61 percent for births to mothers with at least high school education.

The proportion of children who started breastfeeding within first day of birth also varies by region and education. The East, where mothers are usually less educated and are more likely to give birth without the assistance of a medically trained person, has the lowest proportion; 25 percent of all children in this region were not put to the breast during the first day. Looking at the education patterns, 27 percent of children of mothers with no education did not start breastfeeding within first day of their birth compared with 12 percent of births to the most highly educated mothers.

Prelacteal feeding is the practice of giving other liquids to an infant during the period immediately after birth before mother's milk is flowing freely. Table 12.1 shows this practice is common in Turkey. Overall, forty percent of children were received a prelacteal feed. This percentage is highest for children living in the Southeast Anatolia (63 percent).

## **12.2 Breastfeeding Status by the Age of the Child**

UNICEF and WHO recommend that children be exclusively breastfed (i.e, without receiving other liquids or solid foods or plain water) during the first 6 months of life and those children be given solid or mushy supplements beginning with the seventh month of life. While complementary feeding is acceptable after the first 6 months, breastfeeding is recommended to be continued through the second year of life. Use of bottles with nipples is not recommended at any age.

The percent distribution of living children by breastfeeding status at the time of the survey is shown in Table 12.2. The child's breastfeeding status is based on information collected in the survey on feeding practices in the last 24 hours before the interview. "Exclusively breastfed" refers to children who receive breast milk only. "Children who are fully breastfed" includes those who are exclusively breastfed and those who receive only plain water in addition



to breast milk. Table 12.2 also shows the percentage who drank anything from a bottle with a nipple in the day or night before the interview.

Table 12.2 Breastfeeding status by age

Percent distribution of the youngest children under three years living with the mother by breastfeeding status and percentage of children using a bottle with a nipple, according to age in months, Turkey 2003

Age in months	Breastfeeding and consuming:						Total	Percentage using a bottle with a nipple	Number of children
	Not breastfeeding	Exclusively breastfed	Plain water only	Water-based liquids/juice	Other milk	Complementary foods			
<2	1.8	43.5	32.0	15.2	6.4	1.1	100.0	16.4	95
2-3	6.2	15.7	30.9	17.2	21.5	8.5	100.0	39.1	129
4-5	13.4	10.6	15.0	10.8	35.6	14.6	100.0	47.5	148
6-7	18.8	1.8	2.4	4.4	38.5	34.1	100.0	55.5	143
8-9	29.0	1.4	3.0	0.7	23.7	42.2	100.0	62.0	118
10-11	31.5	0.5	1.5	7.7	14.0	44.7	100.0	48.7	109
12-15	44.8	0.0	0.1	2.3	14.0	38.8	100.0	56.9	244
16-19	67.5	0.0	1.2	1.7	7.1	22.5	100.0	55.2	267
20-23	75.7	0.0	0.0	0.2	3.7	20.4	100.0	49.3	238
24-27	89.5	0.0	0.0	0.2	1.6	8.7	100.0	41.6	230
28-31	92.5	0.0	0.0	0.4	0.4	6.6	100.0	33.3	310
32-35	95.7	0.0	0.0	1.0	0.0	3.3	100.0	35.2	305
<6	7.9	20.8	24.9	14.2	23.2	9.0	100.0	36.6	372
6-9	23.4	1.7	2.6	2.7	31.9	37.7	100.0	58.4	261

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children classified as *breastfeeding and consuming plain water only* consume no supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, water-based liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and water-based liquids and who do not receive complementary foods are classified in the water-based liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

Table 12.2 indicates that complementary feeding is common among very young children. In the first two months of life, only 44 percent are exclusively breastfed, a figure which is low but significantly higher than that found in the TDHS-1998 (14 percent). The table also shows that a substantial proportion of children in this age range (47 percent) are predominantly breastfed (i.e., they receive only water, water-based liquids or juices in addition to breast milk). However, 23 percent of children are being given other supplements within the first two months of birth. By age 2-3 months, only 16 percent of children are exclusively breastfed. The percentage of children receiving supplements increases to 78 percent among children 2-3 months of age. The table shows that, after the sixth month, feeding with other milk and complementary foods is more common than breastfeeding. By 12-15 months, 45 percent of children are not breastfed. Early introduction of supplementary food increases the risk of gastrointestinal infections, which is one of the leading causes of infant mortality in Turkey.

Bottle-feeding is also discouraged among very young children, because it contributes to an increased risk of gastrointestinal infections. Table 12.2 shows that, among children less than six months of age the percentage of using a bottle with a nipple is 37 percent and that increases to a peak of 62 percent among children age 8-9 months.

### 12.3 Duration and Frequency of Breastfeeding

Table 12.3 shows the median duration of any, exclusive and predominant breastfeeding. The median duration of breastfeeding for all children is 14 months, which is two months longer from the median reported in 1998. There are some differences in breastfeeding durations among subgroups. Women living in the East are breastfeeding their children 15 months, longer than any other region while in the West and North regions, median durations of less than 11 months are observed. Women who never attended school are breastfeeding for nearly 15 months, at least 5 months longer on average than more educated women. The median durations of any breastfeeding in İstanbul and Southeast Anatolia (14.6 and 14.4 months respectively) are higher than the median found for all children born in the three years preceding the survey.

Median durations for exclusive breastfeeding are very short, around less than one month for all subgroups. There are small variations in the median duration of predominant breastfeeding. Male children, children living in rural areas, children from the East region, and those whose mothers have no education are likely to have a somewhat longer period of predominant breastfeeding.

The frequency of breastfeeding also influences the health of mothers and children through its effect on the length of postpartum amenorrhea. Table 12.3 presents information on the frequency of breastfeeding as indicated by the percentage of children under 6 months of age who were breastfed six or more times in the 24 hours preceding the survey. Ninety-one percent of children under 6 months of age were breastfed 6 times or more in the 24-hour period preceding the survey. The percentage of children breastfed 6 times or more is lowest in the South region (85 percent) and highest among children of mothers who completed second level primary education (99 percent). On the average, children were breastfed 6 times in day time and 5 times at evening and night.

Table 12.3 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, percentage of breastfeeding children under six months living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, Turkey 2003

	Median duration (months) of breastfeeding <sup>1</sup>				Breastfeeding children under 6 months <sup>2</sup>			
	Any	Ex-clusive	Predom-inant <sup>3</sup>	Number of children	Percentage breastfed 6+ times in last 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
<b>Child's sex</b>								
Male	14.1	0.7	3.4	1,248	92.5	6.2	5.1	181
Female	14.0	0.6	2.9	1,154	88.5	6.0	4.7	158
<b>Residence</b>								
Urban	13.8	0.7	2.9	1,585	93.1	6.3	5.0	217
Rural	14.2	0.7	3.7	817	86.2	5.8	4.8	121
<b>Region</b>								
West	10.5	0.8	3.1	794	88.4	5.6	4.7	104
South	13.9	0.5	3.0	321	(85.4)	(5.8)	(5.2)	40
Central	15.2	0.7	3.0	459	(92.5)	(5.4)	(4.2)	66
North	10.8	0.5	0.7	147	(86.1)	(5.1)	(7.4)	21
East	14.7	0.6	3.7	680	94.5	7.4	5.6	106
<b>Selected NUTS 1 Regions</b>								
Istanbul	14.6	0.6	2.7	367	(97.5)	(6.1)	(4.5)	42
Southeast Anatolia	14.4	0.6	3.1	401	96.5	7.7	5.8	66
<b>Education</b>								
No education/Prim. incom.	14.5	0.6	4.0	602	92.3	7.1	5.1	81
First level primary	14.2	0.7	3.3	1,236	87.4	5.7	4.7	174
Second level primary	15.2	0.7	2.6	178	(98.8)	(6.4)	(6.0)	34
High school and higher	10.6	0.5	2.2	386	93.6	5.8	4.7	49
Median for all children	14.0	0.7	3.2	2,402	90.6	6.1	4.9	338
Mean for all children	14.9	2.1	4.8	NA	NA	NA	NA	NA

Note: Median and mean durations are based on current status.

NA = Not applicable

<sup>1</sup>It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding.

<sup>2</sup>Excludes children who do not have a valid answer on the number of times breastfed

<sup>3</sup>Either exclusively breastfed or received breast milk and plain water, water-based liquids, and/or juice only (excludes other milk)

Note: Parentheses indicate a figure is based on 25-49 unweighted cases.

## 12.4 Types of Complementary Foods

Table 12.4 shows the percentage of breastfeeding and non-breastfeeding children who received different types of supplements. Because children may have received more than one type of supplement, the percentages do not add to 100. Among children who are breastfeeding and younger than 6 months, 18 percent received infant formula. The percentage that were given infant formula peaks at 32 percent for infants age 6-7 months and then decreases to 21 percent for those age 8-9 months who are increasingly being given other fluids. For non-breastfeeding children, the numbers of observations are small for the first year of life; however, the results for this group also suggest that infant formula is commonly given in the first months of life, with other types of milk being given more often as baby grows older.

In summary, although breastfeeding is universal in Turkey, exclusive breastfeeding is not widely practiced. In the first six months, only one child out of five is exclusively breastfed. Early introduction of infant formula and other liquids is common, and bottle-feeding is a comparatively popular feeding practice. Results of the TDHS-2003 imply that ongoing efforts of national and international organizations to promote appropriate infant feeding practices must be increased.

**Table 12.4 Types of food received by children in the preceding 24 hours**

Percentage of youngest children under three years of age living with the mother who received specific types of food in the 24 hours before the interview, by breastfeeding status and child's age in months, Turkey 2003

Age (in months)	Infant formula	Other milk/cheese/yoghurt	Other liquids <sup>1</sup>	Any solid or semisolid food	Number of children
<b>BREASTFEEDING CHILDREN</b>					
<2	4.6	3.1	17.7	1.2	94
2-3	15.1	16.9	28.3	7.5	121
4-5	30.7	37.8	46.7	16.8	127
6-7	31.8	66.3	70.5	42.0	116
8-9	21.0	78.4	82.5	58.2	83
10-11	14.7	66.4	89.3	65.2	74
12-15	15.3	76.5	95.5	69.6	134
16-19	10.1	75.5	93.3	70.5	87
20-23	0.8	78.6	98.8	83.8	48
24-35	9.3	65.0	98.3	84.0	48
<6	18.0	20.9	32.2	9.2	342
6-9	27.3	71.3	75.5	48.7	199
<b>NON-BREASTFEEDING CHILDREN</b>					
<2	*	*	*	*	3
2-3	*	*	*	*	8
4-5	(58.3)	(68.2)	(50.0)	(16.9)	25
6-7	(49.6)	(81.5)	(71.1)	(37.7)	30
8-9	(42.9)	(82.5)	(80.3)	(30.1)	37
10-11	(26.0)	(82.0)	(68.3)	(57.0)	40
12-15	17.6	89.5	92.1	78.9	116
16-19	6.6	84.4	90.8	72.3	195
20-23	3.2	78.9	94.2	78.6	195
24-35	2.7	80.4	95.4	83.6	820
<6	(57.9)	(63.5)	(42.8)	(11.7)	36
6-9	45.9	82.1	76.2	33.5	67

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night). An asterisk indicates a figure is based on fewer than 25 unweighted cases. Parentheses indicate a figure is based on 25-49 unweighted cases.

<sup>1</sup> Does not include plain water

## 12.5 Iodization of Household Salt

The disorders induced by dietary iodine deficiency constitute a major global nutrition concern contributing to higher rates of childhood morbidity and mortality. Iodine deficiency is one of the main causes of children's mental retardation and psycho-motor growth. In addition, iodine deficiency has been shown to increase the probability of stillbirth and miscarriage during pregnancy. It also results in low level of school success and insufficiency in working performance because of its negative effects on mental growth. The international convention to overcome the problem of iodine deficiency is the salt iodization.

About half of the sampled households in the TDHS-2003 were asked questions about the use of salt and the medium within which it is kept. Firstly, information was received on the kind of pot in which salt used for cooking was kept. Then a small sample of the salt was taken and tested to find out whether salt was iodized. In the situations that there was no iodide in the salt, it was examined for iodate. The changes in the color of salt after dropping test solution and degree of change in color were recorded. The test results are presented in Table 12.5.

Table 12.5 Iodization of household salt

Percent distribution of households (subsample) with salt tested for iodine content, by level of iodine in salt (parts per million), percentage of households tested, and percentage of households with no salt, according to background characteristics, Turkey 2003

Background characteristic	Iodine content among households tested						Number of households	Percentage with salt tested	Percentage with salt not tested	Percentage with no salt/missing information	Total	Number of households
	None	Po-tassium iodized	<15 ppm Po-tassium iodate	>=15 ppm Po-tassium iodate	Missing	Total						
<b>Residence</b>												
Urban	21.2	69.3	4.7	4.1	0.7	100.0	3,762	97.7	2.1	0.2	100.0	3,850
Rural	50.9	33.4	9.0	6.1	0.5	100.0	1,541	96.5	2.9	0.6	100.0	1,596
<b>Region</b>												
West	19.2	70.7	5.8	4.0	0.4	100.0	2,273	97.8	1.9	0.3	100.0	2,325
South	38.9	50.1	5.0	5.1	0.9	100.0	670	96.3	3.6	0.2	100.0	696
Central	36.0	54.7	4.5	4.2	0.7	100.0	1,224	98.2	1.4	0.4	100.0	1,246
North	14.4	70.9	5.5	7.6	1.7	100.0	400	96.4	3.5	0.1	100.0	415
East	52.8	31.1	9.8	6.0	0.4	100.0	735	96.3	3.2	0.5	100.0	763
<b>NUTS 1 Region</b>												
Istanbul	9.5	82.9	2.6	4.3	0.6	100.0	945	96.7	3.2	0.0	100.0	977
West Marmara	23.1	63.6	8.5	3.7	1.1	100.0	279	98.8	0.8	0.4	100.0	282
Aegean	28.5	57.9	10.2	3.4	0.0	100.0	811	98.6	0.8	0.6	100.0	823
East Marmara	25.6	65.8	2.5	6.1	0.0	100.0	480	98.0	2.0	0.0	100.0	489
West Anatolia	24.8	66.5	3.7	4.2	0.9	100.0	541	98.5	1.1	0.4	100.0	549
Mediterranean	38.9	50.1	5.0	5.1	0.9	100.0	670	96.3	3.6	0.2	100.0	696
Central Anatolia	57.3	34.8	4.9	2.8	0.3	100.0	294	97.0	2.0	0.9	100.0	303
West Black Sea	25.3	60.1	6.8	5.8	1.9	100.0	346	98.1	1.9	0.0	100.0	353
East Black Sea	17.4	71.2	3.4	6.3	1.7	100.0	202	95.7	4.1	0.2	100.0	211
Northeast Anatolia	42.3	41.1	11.1	5.2	0.2	100.0	146	96.5	2.7	0.7	100.0	151
Central East Anatolia	58.0	28.9	10.4	2.7	0.0	100.0	212	94.6	5.1	0.3	100.0	224
Southeast Anatolia	53.9	28.4	8.9	8.1	0.6	100.0	377	97.1	2.2	0.6	100.0	388
Total	29.8	58.9	5.9	4.7	0.6	100.0	5,302	97.4	2.3	0.3	100.0	5,446

In the TDHS-2003, a salt test was completed successfully in 97 percent of the households eligible for the test. It was found that in 30 percent of the households, where test was done, the salt did include neither iodide nor iodate. In other words, in these households, salt was not iodized. In 59 percent of the households, the household was observed to have salt with potassium iodide while in 5 percent of the households the salt contained potassium iodate ( $\geq 15$  ppm).

There are important differences among the types of place of residences and regions in terms of the availability of iodized salt. Iodized salt is not used in about half of rural households. In contrast, in urban areas, four-fifths of households use iodized salt. Use of iodized salt is more common in the West and the North regions when compared with other regions. In İstanbul, 9 of every 10 households use iodized salt. In contrast, less than half of the households in Central East and Southeast Anatolia use iodized salt.

## **12.6 Nutritional Status of Children**

One of the major contributions of the TDHS to the study of child health status is the anthropometric data collected for all children under five years of age. Both weight and height (length) measurements were obtained for each child. Employing this information, standard indices are used to describe the nutritional status of the children: height-for-age, weight-for-height, and weight-for-age.

In any large population, there is obviously a natural variation in height and weight. This variation approximates a normal distribution. For purposes of analyzing anthropometric data, it is standard practice, thus, to use a reference population. The reference population serves as a point of comparison, facilitating the examination of differences in the anthropometric status of subgroups in a population and of changes in nutritional status over time. For the TDHS-2003 the nutritional status of children in the survey population is compared against an international reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by the U.S. Centers for Disease Control (CDC) and the World Health Organization (WHO). The use of the international reference population is based on the finding that well-nourished young children of all population groups (for which data exist) follow very similar growth patterns before puberty.

As recommended by the World Health Organization (WHO) the evaluation of nutritional status involves three indices. The height-for-age index provides an indicator of linear growth retardation among children. Children who are more than two standard deviations below the median of the reference population in terms of height-for-age may be considered stunted (short for their age), or chronically malnourished. Children who are below minus three standard deviations ( $-3$  SD) from the median of the reference population are considered severely stunted. Stunting reflects the outcome of a failure to receive adequate balanced nutrition over a long period of time and is also affected by recurrent and chronic illness. Thus, height-for-age, represents a measure of the long-term effects of malnutrition in a population and does not vary appreciably according to the season of data collection. Stunted children are not immediately obvious in a population; a stunted three-year-old child could look like a well-fed two-year-old.

The weight-for-height index measures body mass in relation to body length. Children who are more than two standard deviations below the median of the reference population in terms of their weight-for-height may be considered too thin (“wasted”) or acutely malnourished. Severe wasting represents the failure to receive adequate balanced nutrition in the period immediately before the survey and may be the result of recent illness episodes, especially diarrhea, or of seasonal variations in food supply.

Weight-for-age index takes into account both acute and chronic malnutrition and often is used to monitor nutritional status on a longitudinal basis. It is a useful tool in clinical settings for continuous assessment of nutritional progress and growth. Children whose weight-for-age is below minus two standard deviations from the median of the reference population are classified as “underweight”.

Table 12.6 shows how the percentage of children under five years of age classified as malnourished according to the height-for-age, weight-for-height, and weight-for-age indices varies with the child's age and selected demographic characteristics. For purposes of comparison in the reference population, only 2.3 percent of children fall below minus two (-2 SD) for each of the three indices.

In the TDHS-2003, all children under five years of age whose mother was interviewed are included in the anthropometric data collection. However, not all eligible children are included in the results presented here; height or weight measurements are missing for 8 percent of eligible children (see Table D.3 in Appendix D). In addition, since two of the indices (height-for-age and weight-for-age) are influenced by the accuracy of the reporting of the child's age, only one percent of children were excluded from the calculation because the month and year of birth was not known. Hence, height and weight data are shown for 92 percent of the eligible children.

Table 12.6 shows that one in 8 children under age 5 is stunted (i.e. short for their age) with more than one-quarter of these children classified as severely stunted. On the other hand comparatively few children are wasted; less than one percent of children under age five have a weight-for-height z-score below -2SDs. Looking at the weight-for-age index, 4 percent of children under age 5 are underweight.

Figure 12.1 and Table 12.6 shows the percentages of children under five years classified as malnourished according to three anthropometric indices of nutritional status of children by child's age in months. Plotted values in the figure are smoothed by a five-month moving average. The proportion of children stunted increases sharply in the first year of life, then remains in the 10-15 percent range until age three when it exceeds 15 percent. The proportion underweight increases to 5 percent at the end of age one and stabilize around 3-7 percent levels. Finally the figure shows, the percentages of children who are wasted are at very low levels across all ages.

Table 12.6 Nutritional status of children by background characteristics

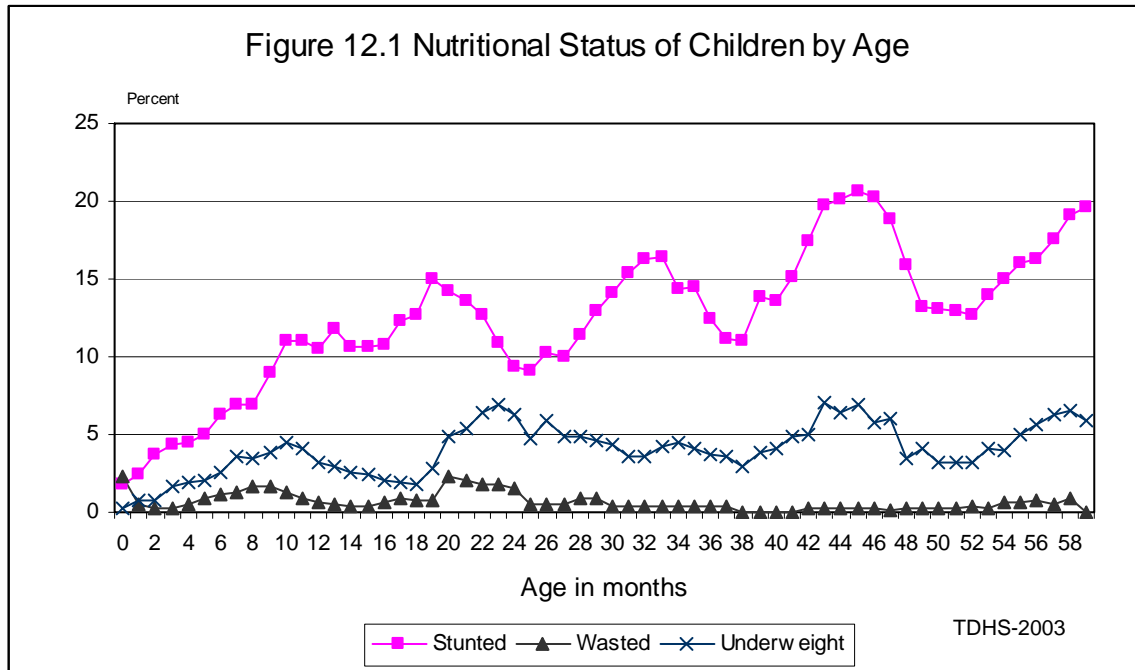
Percentage of children under five years of age who are classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by selected background characteristics, Turkey 2003

Background characteristic	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	Percentage below -3 SD	Percentage below -2 SD <sup>1</sup>	
<b>Child's age (in months)</b>							
<6	0.3	2.2	0.4	1.2	0.2	0.8	334
6-9	3.0	5.6	0.0	0.8	0.0	1.7	247
10-11	2.8	10.8	0.4	1.5	1.9	5.7	103
12-23	1.4	12.4	0.4	0.8	0.5	2.9	702
24-35	3.5	12.2	0.7	1.0	1.3	5.2	755
36-47	6.0	15.4	0.0	0.3	0.3	5.1	750
48-59	5.3	15.4	0.2	0.3	0.6	4.1	777
<b>Sex of child</b>							
Male	2.9	10.9	0.4	1.0	0.6	3.2	1,890
Female	4.5	13.6	0.1	0.4	0.7	4.7	1,778
<b>Birth order</b>							
1	2.0	7.2	0.3	0.5	0.3	2.1	1,225
2-3	2.4	10.3	0.2	0.7	0.5	3.3	1,614
4-5	7.4	21.1	0.8	1.7	2.1	8.2	468
6+	9.7	26.0	0.0	0.4	1.0	7.1	361
<b>Birth interval</b>							
First birth	2.0	7.2	0.3	0.5	0.3	2.1	1,239
Under 24 months	7.7	21.0	0.5	1.4	2.0	7.0	1,614
24-47 months	4.9	16.0	0.0	0.7	0.3	5.2	468
48+ months	1.7	8.9	0.3	0.5	0.6	2.8	361
<b>Residence</b>							
Urban	2.6	9.0	0.3	0.7	0.6	2.8	2,414
Rural	5.6	18.4	0.3	0.8	0.8	5.9	1,254
<b>Region</b>							
West	0.6	5.5	0.5	0.7	0.5	1.9	1,186
South	2.7	10.4	0.2	0.4	0.2	2.8	499
Central	2.6	9.5	0.3	0.8	0.8	2.9	727
North	3.7	13.0	0.2	0.7	0.0	2.2	218
East	8.3	22.5	0.1	0.8	1.1	7.7	1,038
<b>NUTS 1 Region</b>							
Istanbul	0.9	6.1	0.3	0.7	0.4	1.3	572
West Marmara	1.0	7.3	0.7	0.7	0.7	6.3	113
Aegean	1.6	6.6	0.0	0.8	0.8	1.2	346
East Marmara	0.4	3.4	1.1	1.6	1.1	3.0	284
West Anatolia	2.2	9.8	0.4	0.4	0.4	2.7	311
Mediterranean	2.7	10.4	0.2	0.4	0.2	2.8	499
Central Anatolia	1.6	9.6	0.4	0.4	0.8	2.4	204
West Black Sea	3.1	9.1	0.0	0.6	0.0	3.0	182
East Black Sea	4.3	16.9	0.3	0.3	0.0	2.3	118
Northeast Anatolia	6.7	16.8	0.2	1.3	0.9	6.7	166
Central East Anatolia	10.1	26.6	0.0	0.3	1.3	9.6	280
Southeast Anatolia	8.0	22.1	0.2	0.9	1.0	7.1	592
<b>Education</b>							
No education/Prim. incom.	9.1	25.3	0.1	1.0	1.1	8.3	975
First level primary	2.1	9.0	0.3	0.6	0.6	2.7	1,895
Second level primary	1.7	5.6	0.8	0.8	0.0	1.8	275
High school and higher	0.2	2.9	0.2	0.5	0.2	0.9	524
<b>Total</b>	<b>3.6</b>	<b>12.2</b>	<b>0.3</b>	<b>0.7</b>	<b>0.6</b>	<b>3.9</b>	<b>3,668</b>

Note: Figures are for children born in the period 0-59 months preceding the survey. Each index is expressed in terms of the number of standard deviation (SD) units from the median of the NCHS/CDC/WHO international reference population. Children are classified as malnourished if their z-scores are below minus two or minus three standard deviations (-2 SD or -3 SD) from the median of the reference population.

<sup>1</sup> Includes children who are below -3 SD





As a whole, the youngest children show little evidence of malnutrition. However, the proportion classified as stunted exhibits a steady increase starting in the first year of life. Among children 24-59 months of age, around 15 percent are classified as stunted. By age 5, around 15 percent of the children are chronically malnourished, with five percent considered as severely stunted. These patterns reflect inadequate unbalanced feeding practices and/or the presence of recurrent and chronic infections.

The fact that the undernutrition percentages increase with the increasing birth order is important. For example, a little more than one-fourth of children of birth order six or above and one-fifth of children of birth orders four and five are stunted. Birth interval also is related to the prevalence of stunting. Children who are born with an interval of less than two years are much more prone to be stunted. Of these children, 21 percent are stunted and 8 percent are severely stunted.

Table 12.6 also shows the percentage of children under five years of age classified as malnourished according to the three anthropometric indices by selected socio-economic characteristics. There are particularly striking differences in the percentage classified as stunted according to the mother's level of education. The percentage of children whose mothers have a high school education or higher who are below the -2 SD cut-off point (3 percent) is close to that seen for the reference population (2.3 percent). In contrast, almost one-fourth of children whose mothers lack formal education are classified as stunted. There are also urban-rural and regional differences. Stunting is more common in rural (18 percent) than in urban residences (9 percent). The highest level of stunting is seen in the East region (23 percent) and the lowest

levels are in the West and Central regions (6 and 10 percent, respectively). Similar trends are observed for the weight-for-height and weight-for-age indices.

A comparison of the TDHS-2003 findings with the results of the TDHS-1998 indicates that there has been an improvement in the nutritional status of children in Turkey during the five-year period between the surveys. For example, the proportion found to be stunted in the TDHS-2003 survey is 4 percentage points lower than the level observed in TDHS-1998 (16 percent). Further improvements in the nutritional status of Turkish children are dependent upon reducing the numbers of children exposed to the key risk factors, especially short birth intervals and high parity. An intersectoral approach is necessary to discourage mothers from introducing supplementary food too early, to train mothers on the timely introduction of appropriate supplementation, and to assist couples to keep the number of children within their desired limits and ensure optimal birth spacing through effective family planning.

## 12.7 Nutritional Status of Mothers

In order to assess women's nutritional status, women who had given birth in the five-year period before the interview were weighed and their heights measured using the same equipment used to obtain children's measurements (i.e. an electronic scale and wooden height board).

For all women with a birth in the five-year period before the survey Table 12.7 presents the distributions as well as the means and standard deviations for three anthropometric indicators for eligible women: height, weight, and body mass index.

Indicators based on a woman's weight-for-height exclude pregnant women and women with a birth within the 2 months preceding the interview. The table shows that anthropometric

**Table 12.7 Anthropometric indicators of maternal nutritional status**

Percent distribution and mean and standard deviation for women who had a birth in the five years preceding the survey, by selected anthropometric indicators (height, weight, and body mass index (BMI)), Turkey 2003

Indicator	Total	Total plus missing
<b>Height (cm)</b>		
135-139.9	0.1	0.1
140-144.9	1.7	1.7
145-149.9	9.7	9.5
150-154.9	26.3	25.8
155-159.9	34.8	34.0
160-164.9	19.0	18.6
165-169.9	6.8	6.7
170-174.9	1.4	1.4
>= 180	0.0	0.0
Missing	-	2.2
Total	100.0	100.0
Mean	156.7	-
Standard deviation	5.7	-
Number of women	3,094	3,164
<b>Weight (kg)</b>		
35-39.9	0.2	0.2
40-49.9	8.7	8.5
50-59.9	31.0	30.4
60-69.9	28.1	27.5
>= 70	32.0	31.3
Missing	-	2.1
Total	100.0	100.0
Mean	65.0	-
Standard deviation	12.7	-
Number of women	2,782	2,843
<b>BMI (kg/m<sup>2</sup>)</b>		
12.0-15.9 (Severe)	-	-
16.0-16.9 (Moderate)	0.0	0.0
17.0-18.4 (Mild)	1.8	1.8
18.5-20.4 (Normal)	7.6	7.4
20.5-22.9 (Normal)	17.8	17.4
23.0-24.9 (Normal)	15.8	15.5
25.0-26.9 (Overweight)	16.3	15.9
27.0-28.9 (Overweight)	12.7	12.4
29.0-29.9 (Overweight)	5.3	5.2
>= 30.0 (Obese)	22.7	22.3
Missing	-	2.1
Total	100.0	100.0
Mean	26.5	-
Standard deviation	5.1	-
Number of women	2,782	2,843

Note: The weight and BMI measures exclude pregnant women and those who are less than 3 months postpartum.

measures are available for most of the eligible women, with height or weight measurements missing for 2 percent of respondents.

Balanced nutrition during childhood and the adolescent period has a positive impact on linear growth, whereas poor nutrition and experience of a severe illness, particularly in early childhood, can affect growth negatively. In turn, maternal height is useful in predicting the risk of delivery complications since short stature is frequently associated with a small pelvis size. The height below which women are considered to be at risk of such complications is in the range of 140-150 centimeters, with 145 centimeters being the widely accepted cutoff for identifying maternal malnutrition. According to the TDHS-2003 results (Table 12.8), the mean height for mothers was 157 centimeters, one centimeter higher than the mean reported in the TDHS-1998. Two percent of mothers were shorter than 145 centimeters, and 12 percent were below 150 centimeters. The mean maternal weight was 65 kilograms. Nearly one-third (32 percent) of mothers weighed more than 70 kilograms.

The body mass index (BMI) assesses the relation between height and weight and is calculated by dividing the weight in kilograms by the squared height in meters. A body mass index of less than 18.5 is used to identify cases of chronic malnutrition although there is no standard definition of obesity BMI higher than 25.0 is often used to identify women with problems of overweight and obesity. In the TDHS-2003, the mean BMI of non-pregnant mothers was 26.5. The mothers' BMI fell below 18.5 in less than 2 percent of cases. Fifty-seven percent of the mothers had a BMI above 25.0, including 23 percent who had a BMI of at least 30.

Table 12.8 shows the nutritional status of mothers by selected background characteristics. Younger generations of women appear to be taller than women age 35 and over. More educated women are taller compared to less educated women. Mothers who have had no education or did not complete primary education are, on the average, 3.4 centimeters shorter than those with high school education or more.

BMI increases rapidly with age exceeding 25.0 for the majority of women age 25 and older. Body mass index also appears to be related with the educational levels. Residential variations in the BMI are comparatively small; the mean BMI is highest in the North (27.2) and lowest in the West and East (26.2 in both regions). In İstanbul, the percentage of women with a BMI of 25 and higher is 58, which is almost the same as the percentage for all women in Turkey. Mothers with no education had an average BMI of 27 while mothers with high school education or more had an average BMI of 25.

Table 12.8 Nutritional status of women by background characteristics

Among ever-married women age 15-49, mean height, percentage under 145 cm, mean body mass index (BMI), and percentage with specific BMI levels, by background characteristics, Turkey 2003

Background characteristic	Height			BMI <sup>1</sup> (kg/m <sup>2</sup> )	BMI <sup>1</sup> (kg/m <sup>2</sup> )							Number of women
	Mean height in cm	Percentage below 145 cm	Number of women		18.5–24.9 (normal)	<18.5 (thin)	17.0 - 18.4 (mildly thin)	16.0 – 16.9 (moderately thin)	>= 25.0 (overweight/obese)	25.0 – 29.9 (overweight)	>= 30.0 (obese)	
<b>Age</b>												
15-19	158.3	0.0	114	23.3	65.6	4.8	4.8	0.0	29.5	27.3	2.2	94
20-24	157.2	1.8	755	24.7	54.9	3.2	3.2	0.0	42.0	30.5	11.4	645
25-29	157.1	2.1	1,021	25.9	44.3	1.8	1.7	0.1	53.9	35.9	18.0	916
30-34	156.3	1.1	712	27.5	31.8	1.1	1.1	0.0	67.1	38.6	28.5	660
35-39	155.7	2.7	343	29.2	24.7	0.5	0.5	0.0	74.8	31.4	43.4	323
40-44	155.5	3.3	123	29.1	25.2	0.5	0.5	0.0	74.3	34.5	39.8	120
45-49	151.3	7.7	26	31.9	16.9	2.3	2.3	0.0	80.8	16.2	64.6	25
<b>Residence</b>												
Urban	157.1	1.9	2,113	26.5	40.7	1.9	1.9	0.0	57.4	34.6	22.7	1,943
Rural	155.9	1.9	980	26.4	42.2	1.8	1.7	0.1	56.0	33.3	22.7	839
<b>Region</b>												
West	157.2	1.9	1,088	26.2	43.2	1.4	1.4	0.0	55.4	35.8	19.6	1,017
South	157.0	1.6	420	26.7	40.4	1.8	1.8	0.0	57.8	33.2	24.6	379
Central	156.4	1.5	662	26.9	37.3	3.0	3.0	0.0	59.8	34.1	25.7	601
North	156.1	2.4	185	27.4	36.1	1.4	1.4	0.0	62.5	34.3	28.2	171
East	156.3	2.1	738	26.2	43.5	1.7	1.5	0.1	54.8	32.5	22.3	615
<b>Selected NUTS 1 Regions</b>												
Istanbul	157.1	1.1	5,210	26.5	41.0	1.4	1.4	0.0	57.6	37.4	20.2	491
Southeast Anatolia	156.5	2.5	3,990	26.5	39.6	1.6	1.6	0.0	58.8	34.9	23.9	329
<b>Education</b>												
No educ./Prim. incom.	155.2	3.2	684	27.1	38.1	1.1	1.1	0.0	60.8	31.4	29.4	582
First level primary	156.5	1.8	1,635	26.9	37.4	1.9	1.8	0.1	60.8	36.5	24.3	1,477
Second level primary	158.2	1.6	258	25.3	49.9	2.2	2.2	0.0	47.9	33.3	14.6	242
High school and higher	158.6	0.3	517	25.2	52.2	2.5	2.5	0.0	45.3	31.1	14.2	481
<b>Total</b>	<b>156.7</b>	<b>1.9</b>	<b>3,094</b>	<b>26.5</b>	<b>41.2</b>	<b>1.8</b>	<b>1.8</b>	<b>0.0</b>	<b>57.0</b>	<b>34.2</b>	<b>22.7</b>	<b>2,782</b>

<sup>1</sup> Excludes pregnant women and women with a birth in the preceding 2 months

## KNOWLEDGE OF HIV/AIDS

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The TDHS-2003 included questions<sup>1</sup> to assess the level of awareness of sexually transmitted diseases (STDs), particularly HIV/AIDS. In addition, for women knowing about AIDS, there was an effort to assess the knowledge and attitudes of respondents regarding transmission mechanisms and prevention of infection with the HIV virus. To obtain these data, ever-married women aged 15-49 were asked whether they knew about any STDs and, if so, to name the STDs about which they had heard. If they did not mention AIDS, they were asked directly they knew about the disease. All ever-married women knowing about AIDS were then asked questions about their sources of information about AIDS, the ways through which the HIV virus is transmitted to a person, their knowledge of means of avoiding the disease, their opinion about the possibility of getting the HIV virus from a healthy-looking person, and mother-to child transmission.

### 13.1 Knowledge of AIDS and Other STDs

Table 13.1 shows the percentages of ever-married women who have heard of AIDS, who believe that there is a way to avoid HIV/AIDS and who know about other STDs by background characteristics. According to TDHS-2003, 88 percent of ever-married women have heard about AIDS and two-thirds of the women believe that there is a way to avoid AIDS.

The proportion knowing about AIDS is less than 80 percent only for the youngest age group of ever-married women (77 percent); for all other age groups knowledge of AIDS is close to 90 percent. Younger women are also much less likely to believe that AIDS can be avoided. As expected, ever-married women living in urban areas are more knowledgeable about AIDS than their rural counterparts. One in four women has not heard about AIDS in rural areas compared to less than one in ten urban women. Half of the women living in rural areas do not believe that there is a way to avoid HIV/AIDS.

There are important regional differentials in both AIDS knowledge and in the level of awareness that AIDS is preventable. More than 90 percent of ever-married women living in the Central and West regions have heard of AIDS, whereas the figure declines to 69 percent in the East region. Similarly, the Central and West regions have the highest proportions believing that AIDS can be avoided (72 percent and 69 percent, respectively) and the East region has the lowest proportion (43 percent). For NUTS 1 regions, while 72 percent of the

<sup>1</sup> Questions about STDs and AIDS were asked of women in half of the households in the sample of the TDHS-2003. Therefore, the total number of cases in the tables is different than that of tables in other chapters. For a detailed explanation see Appendix B.

ever-married women living in the West Anatolia believe that HIV/AIDS is avoidable, this percentage is 44 for women living in the Central East Anatolia. In İstanbul, this percentage increases to the highest value, 79 percent, whereas it is as low as 40 percent in Southeast region.

Table 13.1 Knowledge of AIDS and other STDs				
Percentage of ever-married women (subsample) who have heard AIDS, who believe there is a way to avoid HIV/AIDS, and who know about at least one other STD (sexually transmitted diseases) by background characteristics, Turkey 2003				
Background characteristic	Has heard of AIDS	Believes there is a way to avoid HIV/AIDS	Knows other STD(s)	Number of women
<b>Age</b>				
15-19	76.7	36.9	17.9	119
20-24	89.7	61.2	22.8	555
25-29	89.9	66.3	28.3	717
30-39	87.2	66.7	34.6	1,474
40-49	88.5	68.3	34.8	1,212
<b>Residence</b>				
Urban	92.8	72.5	35.4	2,881
Rural	77.0	48.7	21.9	1,197
<b>Region</b>				
West	92.3	71.9	34.9	1,652
South	88.7	66.7	33.9	513
Central	93.5	69.3	29.5	962
North	88.5	63.9	25.5	298
East	69.1	43.3	26.2	653
<b>NUTS 1 Region</b>				
İstanbul	96.2	78.5	41.2	715
West Marmara	92.0	68.2	31.3	178
Aegean	85.7	62.2	28.2	588
East Marmara	92.3	69.8	31.4	373
West Anatolia	94.2	71.8	32.0	413
Mediterranean	88.7	66.7	33.9	513
Central Anatolia	95.1	69.7	27.1	239
West Black Sea	92.3	67.0	25.7	254
East Black Sea	90.2	67.3	26.9	151
Northeast Anatolia	81.4	53.5	29.3	120
Central East Anatolia	68.4	43.8	23.1	201
Southeast Anatolia	65.0	39.4	27.0	332
<b>Education</b>				
No education/Primary incomplete	62.5	36.3	21.1	891
First level primary	93.5	67.2	26.6	2,218
Second level primary	98.7	78.9	40.3	322
High school and higher	99.6	93.0	57.6	647
Total	88.1	65.5	31.4	4,078

When knowledge of AIDS is assessed by NUTS 1 regions, it is obvious that a much more significant proportion of ever-married women living in the Central East Anatolia and the South East Anatolia Region lack information on AIDS when compared to women in the other regions. On the other hand, only 4 percent of women who lives in Istanbul region have not heard about AIDS.

The level of education is closely related to knowledge of AIDS. Almost all ever-married women with secondary or higher education have heard of AIDS, while this figure declines to 63 percent for women with less than primary education. Only 36 percent of ever-married women with less than first level primary believe that there is a way to avoid HIV/AIDS.

Finally, it is noteworthy that, irrespective of region, place of residence, of educational level and age, AIDS is more widely known than other STDs. This is likely in part due to the fact that the TDHS-2003 questionnaire included a general question on knowledge of STDs and did not prompt women by naming specific STDs except in the case of AIDS. Nevertheless the results indicate relatively low levels of awareness of STDs other than AIDS among ever-married women in Turkey.

### **13.2 Sources of Information about AIDS**

For ever-married women, television is the leading source of information on AIDS. According to the Table 13.2, 96 percent of ever-married women who knew about AIDS received information about AIDS from television, 24 percent from newspapers or magazines, 19 percent from friends or relatives, 6 percent from health workers and 5 percent from radio broadcasts. It is notable that, even among young women, schools are not major sources of information. This may reflect the fact that the sample includes only ever-married women, many of whom are no longer in school even in the younger cohorts.

The proportions of women citing the various sources does not vary much by age group, residence and region but there are significant differences by educational level. Especially noteworthy in this regard are the higher percentages in high school or higher education group who mention the radio, newspaper/magazines, pamphlets/posters and school/teachers as sources compared to less educated women.

Table 13.2 Source of AIDS information

Percentage of ever-married women (subsample) knowing about AIDS by the source of AIDS information, according to background characteristics, Turkey 2003

Background characteristic	Sources of information about AIDS									Mean number of sources	Number of ever-married women knowing about AIDS
	Radio	TV	News-papers/magazines	Pam- phlets/posters	Health Work-ers	School/ teachers	Hus- band	Friends/ relatives	Work place		
<b>Age</b>											
15-19	2.6	89.7	11.5	2.3	10.6	8.0	2.8	19.1	0.0	1.5	92
20-24	3.0	95.4	12.5	1.9	7.2	3.3	3.1	21.8	0.3	1.5	501
25-29	4.1	96.4	23.9	2.7	6.3	2.9	2.6	20.5	0.4	1.6	650
30-39	7.0	96.6	26.3	1.9	7.5	1.6	2.6	18.3	0.5	1.6	1,294
40-49	4.0	95.8	26.0	2.2	4.0	0.5	1.8	18.5	0.5	1.5	1,082
<b>Residence</b>											
Urban	5.8	96.8	27.8	2.6	7.0	2.4	2.1	19.0	0.6	1.6	2,699
Rural	2.2	93.6	11.1	0.8	4.2	0.4	3.3	20.1	0.0	1.4	920
<b>Region</b>											
West	5.0	97.1	28.6	2.7	7.4	2.0	2.3	20.8	0.6	1.7	1,540
South	5.0	97.6	24.5	1.9	6.2	2.2	4.6	18.1	0.2	1.6	459
Central	5.0	95.9	20.5	1.6	6.1	1.9	1.6	17.1	0.4	1.5	904
North	4.5	92.9	18.5	2.6	3.3	1.8	1.4	26.7	0.8	1.5	263
East	4.7	92.8	14.3	0.9	4.6	1.2	2.8	15.2	0.0	1.4	454
<b>NUTS 1 Region</b>											
İstanbul	6.2	97.6	32.0	3.6	7.0	2.8	1.9	15.0	0.5	1.7	685
West Marmara	4.6	96.7	28.0	2.0	2.9	1.0	1.7	18.3	0.0	1.6	166
Aegean	3.4	96.1	23.1	1.5	7.8	1.6	2.2	25.2	0.8	1.6	514
East Marmara	4.1	97.9	25.3	2.3	9.1	1.5	2.4	23.9	0.6	1.7	353
West Anatolia	9.1	97.5	27.4	3.0	6.2	0.9	1.7	18.6	0.4	1.6	393
Mediterranean	5.0	97.6	24.5	1.9	6.2	2.2	4.6	18.1	0.2	1.6	459
Central Anatolia	0.5	91.4	12.8	0.4	2.7	2.7	3.0	18.1	0.4	1.3	225
West Black Sea	3.6	96.3	16.1	1.1	7.0	3.0	0.8	16.9	0.0	1.4	233
East Black Sea	4.4	89.5	19.3	3.8	4.4	1.5	2.0	33.9	1.5	1.6	136
Northeast Anatolia	4.3	88.8	13.6	1.3	3.8	2.0	5.3	24.5	0.0	1.4	97
Central East Anatolia	0.9	95.4	16.7	0.9	3.4	0.9	3.3	16.7	0.0	1.4	138
Southeast Anatolia	7.3	93.0	13.0	0.8	5.7	1.1	1.4	10.0	0.0	1.3	218
<b>Education</b>											
No education/Prim. incom	2.0	91.8	4.2	0.0	3.5	0.0	1.8	23.3	0.0	1.3	560
First level primary	3.3	96.4	16.3	0.8	5.0	0.2	2.4	19.8	0.2	1.4	2,086
Second level primary	3.4	98.5	31.9	2.4	9.4	2.3	3.7	16.5	0.3	1.7	321
High school and higher	13.3	97.1	59.3	8.1	11.4	8.9	2.4	15.3	1.7	2.2	652
Total	4.9	96.0	23.5	2.1	6.3	1.9	2.4	19.3	0.4	1.6	3,619

### 13.3 Knowledge of Ways to Prevent AIDS

Although AIDS is generally known by ever-married women, knowledge of ways to avoid it appears to be poor among a substantial minority of the group. Overall, nearly one of three ever-married women did not know of AIDS or if the disease could be avoided (Table 13.3). An additional 7 percent of ever-married women believe that there are no ways of preventing the contraction of the disease (4 percent) or they cannot name any ways to avoid AIDS (3 percent).



Ways to avoid HIV/AIDS	Percentage
Does not know of AIDS or if AIDS can be avoided	30.9
Believes no way to avoid AIDS	3.6
Does not know specific way	2.6
Use condoms	21.9
Limit sex to one partner/stay faithful to one partner	21.5
Avoid sex with prostitutes	19.3
Avoid sex with homosexuals	0.4
Avoid blood transfusions	5.2
Control before blood transfusions	17.8
Use sterilized injections	4.3
Avoid kissing	2.1
Avoid mosquito bites	0
Use sterilized tools	4.2
Other	13.3
Number of women	4,078

Ever-married women who stated that AIDS is preventable mentioned a number of avenues to avoid the disease. Twenty-two percent of the women indicated that the disease can be prevented by using condoms. Other common responses were that AIDS can be prevented by having sex with one partner (22 percent), by avoiding sex with prostitutes (19 percent), and by avoiding blood transfusions (18 percent). A small percentage of women cited avoiding use of sterilized injections (less than 5 percent) as ways to avoid getting AIDS.

Table 13.4 shows the differentials in the knowledge of ways to avoid AIDS among ever-married women. Older women are better informed about ways to avoid AIDS than younger women. Women living in urban areas appear to be better informed than their counterparts living in rural areas; around 70 percent of urban women are able to cite at least one way to avoid AIDS compared to less than half of rural women. In general, women living in the East region are among the least likely to cite a way to avoid AIDS; only around 40 percent can name a means for preventing AIDS. In Southeast Anatolia region, 62 percent of women do not know any way of avoiding this disease.

The proportions of women mentioning specific ways to prevent AIDS also vary by age, residence, region and educational level. For example, only 9 percent of women living in rural areas mention use of a condom compared to 27 percent of urban women. Among the 12 NUTS 1 regions, the proportions mentioning “using condoms” are higher among women from the western regions than among women from other regions. The percentage of women who cite using condoms as a way to avoid AIDS also varies markedly by education, from 6 percent for women in the lowest educational category to 51 percent for women for those with the highest educational qualifications.

The proportions mentioning other means to avoid AIDS show similar variation with the background characteristics in Table 13.4. For example, the percentage of women who cite

“having only one sex partner” as a means of avoiding AIDS varies from 13 percent in the East region to 25 percent in the West region. The proportion of women who declared “avoid sex with prostitutes” is 31 percent in East Black Sea region.

Table 13.4 Ways to avoid AIDS by background characteristics

Percentage of ever-married women (subsample) by ways to avoid AIDS, according to background characteristics, Turkey 2003

Background characteristic	Use condoms	Have only one sex Partner	Avoid sex with prostitutes	Avoid sex with homosexuals	Avoid trans-fusions	Avoid kissing	Avoid mosquito bites	Other ways	Don't know <sup>1</sup>	Number of women
<b>Age</b>										
15-19	5.5	13.2	5.4	0.0	0.8	1.3	0.0	11.1	69.4	119
20-24	20.0	20.1	14.8	0.1	4.3	1.0	0.0	24.0	43.4	555
25-29	27.6	17.8	17.4	0.4	5.7	1.6	0.0	34.4	36.5	717
30-39	23.4	24.1	20.4	0.6	5.7	2.1	0.0	33.5	34.9	1,474
40-49	19.3	21.9	22.5	0.3	5.2	3.1	0.1	35.7	33.9	1,212
<b>Residence</b>										
Urban	27.4	24.7	20.1	0.4	6.2	2.5	0.0	36.9	29.9	2,881
Rural	8.7	13.6	17.3	0.3	2.8	1.1	0.1	21.5	54.3	1,197
<b>Region</b>										
West	28.0	24.9	20.0	0.1	6.9	2.6	0.0	37.5	30.2	1,652
South	23.1	21.6	21.0	1.8	4.9	2.5	0.0	31.4	34.6	513
Central	19.1	22.5	20.6	0.0	4.6	2.1	0.0	34.2	34.4	962
North	17.9	17.5	21.0	1.1	3.8	1.8	0.3	31.9	37.9	298
East	11.6	13.1	13.6	0.3	3.0	0.6	0.0	17.6	59.7	653
<b>NUTS 1 Region</b>										
İstanbul	32.1	31.8	19.8	0.0	8.5	3.7	0.0	38.7	22.7	715
West Marmara	24.1	19.7	11.4	0.0	4.1	1.5	0.4	37.3	37.4	178
Aegean	21.9	18.6	19.4	0.0	3.6	1.8	0.0	34.3	40.5	588
East Marmara	27.4	23.4	23.7	0.4	8.4	2.3	0.0	34.3	32.1	373
West Anatolia	22.1	26.6	20.7	0.0	5.4	3.0	0.0	37.7	31.1	413
Mediterranean	23.1	21.6	21.0	1.8	4.9	2.5	0.0	31.4	34.6	513
Central Anatolia	16.8	17.6	24.0	0.0	4.1	1.2	0.0	30.5	35.0	239
West Black Sea	16.1	18.9	14.5	1.3	5.0	2.0	0.4	36.7	36.5	254
East Black Sea	15.5	13.5	30.6	0.0	2.4	0.8	0.0	32.2	34.1	151
Northeast Anatolia	16.0	12.4	20.1	0.0	2.2	1.3	0.0	24.0	49.1	120
Central East Anatolia	10.2	9.5	14.9	0.3	3.1	0.9	0.0	17.8	61.7	201
Southeast Anatolia	10.9	15.5	10.5	0.4	3.2	0.2	0.0	15.1	62.4	332
<b>Education</b>										
No education/Prim. incom.	5.5	10.3	15.3	0.0	1.4	1.0	0.0	12.0	65.6	891
First level primary	18.3	22.0	20.4	0.5	5.1	2.0	0.1	30.3	36.1	2,218
Second level primary	34.5	25.3	22.7	0.5	6.2	3.2	0.0	41.4	23.5	322
High school and higher	50.8	33.1	19.1	0.5	10.5	3.4	0.0	62.8	7.8	647
<b>Total</b>	<b>21.9</b>	<b>21.5</b>	<b>19.3</b>	<b>0.4</b>	<b>5.2</b>	<b>2.1</b>	<b>0.0</b>	<b>32.3</b>	<b>37.0</b>	<b>4,078</b>

<sup>1</sup> Includes those women do not know of AIDS or if AIDS can be avoided, who believe there is no way to avoid AIDS, and who do not know any specific way to avoid AIDS

### 13.4 Perception of Risk of AIDS

The TDHS-2003 collected information on women's attitude about whether a healthy-looking person might have AIDS and of the ways in which mother-to-child transmission may occur. Table 13.5 presents these results.

Six of ten ever-married women state that a healthy-looking person could have AIDS. Ever-married women living in the West region, those living in urban areas, and those with higher educational qualifications are more likely to know that it is possible for a person with AIDS to look healthy. Younger women are also more knowledgeable about this fact compared to their older counterparts. While the proportion of ever married women in İstanbul and East Marmara regions who indicated that a healthy looking person could have the AIDS virus is 75 and 73 percent respectively, in Aegean, West Anatolia, and Mediterranean regions the percentages of having the same opinion are about 57 percent. For ever-married women living in Southeast Anatolia Region, this proportion declines to 39 percent.

Slightly more than half of ever-married women believed that the HIV virus can be transmitted from a mother to a child during the delivery and through breastfeeding. Two-thirds of women agree that transmission can occur during pregnancy. The proportions show similar patterns for residence and regions as in other comparisons. Considering residential differentials, urban residents and residents of the West region and of the western NUTS1 regions have the highest proportions aware of mother-to-child transmission routes while rural residents and residents of the East region and of the eastern NUTS1 regions have the lowest proportions aware of these transmission routes. Educational qualifications are also strongly related to knowledge with regard to the mechanisms through which the HIV virus can be transmitted from a mother to a child. Seven in ten of ever-married woman who have high school or higher education indicated that the HIV virus can be transmitted from mother to child during pregnancy and 83 percent of them indicated that this is possible during delivery. In contrast, around four in ten women in the lowest category know about these transmission routes.

Table 13.5 Knowledge of HIV/AIDS-related issues					
Percentage of ever-married women (subsample) who gave specific responses to questions on various HIV/AIDS-related issues, according to background characteristics, Turkey 2003					
Background characteristic	Percentage who say a healthy-looking person can have the AIDS virus	Percentage who say HIV/AIDS can be transmitted from a mother to a child			Number of women
		During delivery	During pregnancy	Through breast-feeding	
<b>Age</b>					
15-19	51.2	42.6	50.8	43.5	119
20-24	65.9	47.7	65.3	53.6	555
25-29	67.0	50.8	66.5	44.9	717
30-39	58.9	51.6	68.5	46.8	1,474
40-49	58.0	52.8	64.8	51.2	1,212
<b>Residence</b>					
Urban	67.6	55.6	70.5	49.4	2,881
Rural	44.5	40.0	55.5	46.6	1,197
<b>Region</b>					
West	67.7	52.5	68.7	48.0	1,652
South	56.9	48.8	66.4	48.8	513
Central	62.3	56.2	72.1	51.9	962
North	62.2	53.5	68.5	55.1	298
East	43.6	40.2	49.2	42.2	653
<b>NUTS 1 Region</b>					
Istanbul	74.7	56.2	72.0	49.9	715
West Marmara	63.3	53.0	69.4	50.0	178
Aegean	57.4	48.2	63.8	43.7	588
East Marmara	72.6	50.3	67.7	50.5	373
West Anatolia	57.9	56.5	73.7	47.9	413
Mediterranean	56.9	48.8	66.4	48.8	513
Central Anatolia	61.4	57.5	75.6	57.5	239
West Black Sea	65.2	53.7	65.8	54.8	254
East Black Sea	63.0	61.5	75.7	59.4	151
Northeast Anatolia	51.3	51.0	63.3	49.7	120
Central East Anatolia	46.4	42.9	51.8	45.8	201
Southeast Anatolia	39.1	34.6	42.5	37.4	332
<b>Education</b>					
No education/Primary incomplete	33.3	36.3	44.3	41.1	891
First level primary	61.4	50.6	67.8	52.4	2,218
Second level primary	76.5	58.2	80.2	54.0	322
High school and higher	88.9	69.1	83.3	42.9	647
Total	60.8	51.0	66.1	48.6	4,078

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The major features of sample design and implementation for the Turkish Demographic and Health Survey, 2003 (TDHS-2003) are described in this section. Sample design features that are discussed include: target sample size, choice of domains, sampling stages, stratification, degree of clustering, and the relationship of design decisions to the nature of the sample frame<sup>1</sup>. Aspects of the sample implementation include the cartographic and listing work that was needed to update, improve, or generate the ultimate sample lists of households or individuals, as well as the procedures for the final household selection.

This section also presents information on fieldwork, including descriptions of the recruitment and training of interviewers, the composition of interviewing teams, quality control procedures, and various practical problems encountered. Response rates<sup>2</sup> for urban and rural areas and regions are presented. An account is also given of the data processing and analysis, including a description of the calculation of the final weighting factors (design and non-response weights).

### **B.1 Sample Design and Implementation**

A weighted, multistage, stratified cluster sampling approach was used in the selection of the TDHS-2003 sample. The sample was designed in this fashion because of the need to provide estimates for a variety of characteristics for various domains. These domains, which are frequently employed in the tabulation of major indicators from the survey, are:

- Turkey as a whole;
- Urban and rural areas (each as a separate domain);
- Each of the conventional major five regions of the country, namely the West, South, Central, North, and East regions
- The 12 NUTS 1<sup>3</sup> regions, for selected indicators which are based on sufficient number of observations

The major objective of the TDHS-2003 sample design was to ensure that the survey would provide estimates with acceptable precision for these domains for most of the important demographic characteristics, such as fertility, infant and child mortality, and contraceptive prevalence, as well as for the health indicators. The different populations covered by the TDHS-

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<sup>1</sup> For an additional description of these aspects of sample designs for DHS surveys, see the *DHS Sampling Manual*, Basic Documentation Series, No. 8, pp. 59-66, 1996.

<sup>2</sup> For a more complete discussion of the calculation of response rates, see the *DHS Sampling Manual*, Basic Documentation Series, No. 8, pp. 55-57, 1996.

<sup>3</sup> Information is provided on NUTS regions in the sections that follow.



2003 survey were defined as the total population for the Household Questionnaire and all ever-married women younger than age 50 for the Individual Questionnaire. The aim was to survey these populations by designing a sample of households and interviewing an adult member of the household in order to collect information on household members. All ever-married women age 15-49 in the household who were identified as eligible in the household schedule were interviewed. In addition, some information was collected for households and women in a sub-sample of one-half of all households.

## **B.2 Sample Frame**

Different criteria have been used to describe "urban" and "rural" settlements in Turkey. In the demographic surveys of the 1970s, a population size of 2,000 was used to differentiate between urban and rural settlements. In the 1980s, the cut-off point was increased to 10,000 and, in some surveys in the 1990s, to 20,000. A number of surveys used information on the administrative status of settlements in combination with population size for the purpose of differentiation. The urban frame of the TDHS-2003 consisted of a list of provincial centers, district centers, and other settlements with populations larger than 10,000, regardless of administrative status. The rural frame consisted of all district centers, sub-districts and villages not included in the urban frame. The urban-rural definitions of the TDHS-2003 are identical with those in the TDHS-1998.

Initial information on all settlements in Turkey was obtained from the 2000 General Population Census. The results of 2000 General Population Census provided a computerized list of all settlements (provincial and district centers, sub-districts and villages), their populations and the numbers of households.

## **B.3 Stratification**

Currently Turkey is divided administratively into 81 provinces. For purposes of selection in prior surveys in Turkey, these provinces have been grouped into five regions. This regional breakdown has been popularized as a powerful variable for understanding the demographic, social, cultural, and economic differences between different parts of the country. The five regions, West, South, Central, North, and East regions, include varying numbers of provinces. Information on provinces in each of these regions is provided in Table B.1.

In addition to the conventional five geographic regions, a new system of regional breakdown was adopted in late 2002. In accordance with the accession process of Turkey to the European Union, the State Planning Office and the State Institute of Statistics constructed three levels of NUTS regions, which have since become official (Law No. 2002/4720). "NUTS" stands for "*The Nomenclature of Territorial Units for Statistics*". NUTS is a statistical region classification that is used by member countries of European Union (EU). The 81 provinces were designated as regions of NUTS 3 level; these were further aggregated into 26 regions to form the NUTS 2 regions. NUTS 1 regions were formed by aggregating NUTS 2 regions into 12 regions.

Table B.1 List of strata by region, NUTS 1 region, residence, type and province, Turkey 2003

Stratum	Region	NUTS 1 Region	Type	Province
1	West	İstanbul	Urban/Metropol/Slum	İstanbul
2	West	İstanbul	Urban/Metropol/Non-slum	İstanbul
3	West	İstanbul	Urban	İstanbul
4	West	İstanbul	Rural	İstanbul
5	West	West Marmara	Urban	Edirne, Kırklareli, Tekirdağ, Balıkesir, Çanakkale
6	West	West Marmara	Rural	Edirne, Kırklareli, Tekirdağ, Balıkesir, Çanakkale
7	West	Aegean	Urban/Metropol	İzmir
8	West	Aegean	Urban	İzmir, Aydın, Denizli, Muğla, Manisa
9	West	Aegean	Rural	İzmir, Aydın, Denizli, Muğla, Manisa
10	Central	Aegean	Urban	Afyon, Kütahya, Uşak
11	Central	Aegean	Rural	Afyon, Kütahya, Uşak
12	West	East Marmara	Urban/Metropol	Bursa
13	West	East Marmara	Urban	Bursa
14	West	East Marmara	Rural	Bursa
15	West	East Marmara	Urban/Earthquake	Kocaeli, Sakarya, Yalova
16	West	East Marmara	Rural/Earthquake	Kocaeli, Sakarya, Yalova
17	Central	East Marmara	Urban	Bilecik, Eskişehir
18	Central	East Marmara	Rural	Bilecik, Eskişehir
19	Central	East Marmara	Urban/Earthquake	Bolu, Düzce
20	Central	East Marmara	Rural/Earthquake	Bolu, Düzce
21	Central	West Anatolia	Urban/Metropol	Ankara
22	Central	West Anatolia	Urban	Ankara, Konya, Karaman
23	Central	West Anatolia	Rural	Ankara, Konya, Karaman
24	South	Mediterranean	Urban/Metropol	Adana
25	South	Mediterranean	Urban	Antalya, Burdur, Isparta, Adana, İçel, Hatay, K. Maraş, Osmaniye
26	South	Mediterranean	Rural	Antalya, Burdur, Isparta, Adana, İçel, Hatay, K. Maraş, Osmaniye
27	Central	Central Anatolia	Urban	Kırşehir, Nevşehir, Niğde, Aksaray, Kırıkkale, Kayseri, Sivas, Yozgat
28	Central	Central Anatolia	Rural	Kırşehir, Nevşehir, Niğde, Aksaray, Kırıkkale, Kayseri, Sivas, Yozgat
29	North	West Black Sea	Urban	Zonguldak, Bartın, Karabük, Kastamonu, Sinop, Samsun
30	North	West Black Sea	Rural	Zonguldak, Bartın, Karabük, Kastamonu, Sinop, Samsun
31	Central	West Black Sea	Urban	Çankırı, Amasya, Çorum, Tokat
32	Central	West Black Sea	Rural	Çankırı, Amasya, Çorum, Tokat
33	North	East Black Sea	Urban	Artvin, Giresun, Gümüşhane, Ordu, Rize, Trabzon
34	North	East Black Sea	Rural	Artvin, Giresun, Gümüşhane, Ordu, Rize, Trabzon
35	East	Northeast Anatolia	Urban	Erzincan, Erzurum, Bayburt, Ağrı, Kars, Ardahan, Iğdır
36	East	Northeast Anatolia	Rural	Erzincan, Erzurum, Bayburt, Ağrı, Kars, Ardahan, Iğdır
37	East	Central East Anatolia	Urban	Bingöl, Elazığ, Malatya, Tunceli, Bitlis, Hakkari, Muş, Van
38	East	Central East Anatolia	Rural	Bingöl, Elazığ, Malatya, Tunceli, Bitlis, Hakkari, Muş, Van
39	East	Southeast Anatolia	Urban	Adıyaman, Gaziantep, Kilis, Diyarbakır, Şanlıurfa, Mardin, Siirt, Batman, Şırnak
40	East	Southeast Anatolia	Rural	Adıyaman, Gaziantep, Kilis, Diyarbakır, Şanlıurfa, Mardin, Siirt, Batman, Şırnak

Two of the NUTS 1 regions, İstanbul and the Southeastern Anatolia, were given special attention in the sample design process and a comparatively larger share of the total sample was allocated to these regions to ensure that statistically sound estimates for a larger number of indicators would be obtained than would be the case for the remaining 10 NUTS 1 regions. Policymakers, researchers and other concerned circles had voiced interest in information on demographic and health indicators for İstanbul and the Southeastern Anatolian regions in the past. Furthermore, as an add-on study, the İstanbul metropolitan area was designated by UN-Habitat as one of the mega-cities in their International Slum Survey series. In co-operation with UN-Habitat, HUIPS wished to be able to produce estimates for slum<sup>4</sup> and non-slum areas within İstanbul; for this reason, the total sample size for İstanbul was kept at a relatively high magnitude.

One of the priorities of the TDHS-2003 was to produce a sample design that was methodologically and conceptually consistent with the designs of previous demographic surveys carried out by the Hacettepe Institute of Population Studies. In surveys prior to the TDHS-1993, the five-region breakdown of the country was used for stratification. In TDHS-1993, a more detailed stratification taking into account subregions was employed to obtain a better dispersion of the sample. The criteria for subdividing the five major regions into subregions were the infant mortality rates of each province, estimated from the 1990 Population Census using indirect techniques.<sup>5</sup> Using the infant mortality estimates as well as geographic proximity, the provinces in each region were grouped into 14 subregions at the time of the TDHS-1993. The sub-regional division developed during the TDHS-1993 was used in TDHS-1998.

However, the new NUTS regions necessitated further steps for sample design, namely that the sample design of the TDHS-2003 would allow using the conventional five regions as well as the NUTS 1 regions as sample domains. The conventional five regions cannot be obtained by aggregating the 12 NUTS 1 regions. To ensure both regional breakdowns were served by the sample design, 20 mutually exclusive strata had to be created, which, when appropriately aggregated, would produce the five conventional regions or the NUTS 1 regions. It became clear during this exercise, however, that if slight modifications were made to the boundaries of the 5 regions a smaller number of strata would be sufficient for reflecting both breakdowns in the sample design. More specifically, changing the regions to which only 6 provinces out of 81 were included would make it possible to construct 15 strata and serve the same purpose. This exercise was undertaken; also, a series of statistical tests were carried out to make sure that the modification to the regional boundaries would not make any difference in terms of regional indicators.

As a result of these considerations and exercises, 40 separate strata were created for the sample design of the TDHS-2003. This included the designation of 15 “divisions” by urban and rural stratum, the two strata within İstanbul (slum and non-slum), and metropolitan cities as mutually exclusive strata. The stratification also makes possible to combine provinces, which were affected by the earthquake in 1999.

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<sup>4</sup> For convenience purposes, the term “slum” is used to refer to irregularly formed/developed housing areas, irrespective of whether they are subsequently regularized or not. These areas are known to predominantly house lower middle income and poor households.

<sup>5</sup> See Hancıoğlu, A. 1991. *Indirect estimation of mortality from information on the survival status of a close relative: Turkey 1970-1985*, Unpublished Doctoral Dissertation, Hacettepe Institute of Population Studies, Ankara.

## B.4 Sample Allocation

The target sample size of the TDHS-2003 was set at 13,160 households, some 30 percent larger than that of the TDHS-1998. This increase is mainly related with the designation of new strata, the special attention given to İstanbul and Southeast Anatolia region, and with the adjustment of optimum allocation among the NUTS 1 regions. The targeted number was allocated among the five major regions as similar as possible to the TDHS-1998 (Table B.2). However, since İstanbul and Southeast Anatolia regions are over-sampled, the number of observations is higher for West and East regions relative to the previous survey. It was also aimed to target not less than 740 households for each NUTS 1 region. Based on previous experience in sample surveys, the target number of 13,160 households was expected to yield about 11,000 completed household interviews.

Regional categories	TDHS-1993	TDHS-1998	TDHS-2003
<b>Region</b>			
West	2,700	2,800	4,330
South	1,700	1,800	1,840
Central	2,100	2,100	2,450
North	1,500	1,500	1,580
East	2,000	1,800	2,960
Total	10,000	10,000	13,160
<b>NUTS 1 Regions</b>			
İstanbul	-	-	2,080
West Marmara	-	-	740
Aegean	-	-	1,000
East Marmara	-	-	1,040
West Anatolia	-	-	890
Mediterranean	-	-	1,840
Central Anatolia	-	-	740
West Black Sea	-	-	1,030
East Black Sea	-	-	840
Northeast Anatolia	-	-	740
Central East Anatolia	-	-	740
Southeast Anatolia	-	-	1,480
Total			13,160

Note: The number of households for TDHS-1993 and TDHS-1998 are not given NUTS 1 regions has been used since 2002.

To have an adequate representation of clusters within each of the five major regions, it was decided to select 25 households per standard urban segment (under the assumption of each cluster consisting of 100 households) and 15 households per standard rural segment. One exception to this was the selection of 12 households from the two urban segments in İstanbul (slum and non-slum). It was also determined that any of the strata should consist of at least 4

clusters, in order to make easier the sampling error calculations. On this basis, the total number of selected standard segments by regions is shown in Table B.3.

Table B.3 Distribution of sample clusters			
Number of clusters by region, NUTS 1 Regions and urban-rural residence, Turkey 2003			
Regional categories	Urban segments (Population > 10000) (Cluster size= 25 HHs)	Rural segments (Population < 10000) (Cluster size= 15 HHs)	Number of segments
<b>Region</b>			
West*	230	44	274
South	52	36	88
Central	68	50	118
North	44	32	76
East	80	64	144
<b>NUTS 1 Regions</b>			
İstanbul*	164	4	168
West Marmara	20	16	36
Aegean	28	20	48
East Marmara	32	16	48
West Anatolia	26	16	42
Mediterranean	52	36	88
Central Anatolia	20	16	36
West Black Sea	28	22	50
East Black Sea	24	16	40
Northeast Anatolia	20	16	36
Central East Anatolia	20	16	36
Southeast Anatolia	40	32	72
<b>Total</b>	<b>474</b>	<b>226</b>	<b>700</b>

\*The cluster size is 12 households for the 160 metropolitan segments of İstanbul.

## B.5 Sample Selection

### Selection Procedures

For the first-stage sample selection, settlements were grouped within each of the 40 strata, and a systematic random sample of settlements with probability proportional to size (PPS) based on the 2000 General Population Census was selected from the settlement lists. The output from this first stage of the selection was a list of all of the settlements included in the TDHS-2003 sample along with the number of clusters to be drawn from each settlement.

The first stage selection for the two strata of İstanbul metropolitan area was performed by using a more detailed settlement list due to the need for stratification of the city into slum-and non-slum strata. Quarters of İstanbul were classified as slum or non-slum using expert opinion, simply to create probabilistic stratification and taking care of selection probabilities. Similar to settlement selection in other strata in the sample, quarters were selected systematically from these two strata in the first stage.

In Turkey, settlements are not divided into small area units with well-defined boundaries (e.g., census enumeration areas) that can be used for conducting surveys. For some settlements, however, household lists were available from the Structure Schedules that were prepared in 2000 by municipalities in collaboration with the State Institute of Statistics (SIS). Some of these lists were updated in 2002. For 563 clusters, SIS was able to provide household lists from the Structure Schedules. For those settlements, the household lists were subdivided into segments of approximately 100 households with the exception of the two İstanbul metropolitan strata, where the segments included approximately 50 households. The list of these segments constituted the frame for the selection of the 563 clusters. For each of the selected clusters, SIS provided a list of the dwellings units with their full addresses (quarter, area, avenue/street, building and door number).

SIS was not able to provide household lists from the Structure Schedules for settlements without municipalities from which 137 clusters were to be drawn for the TDHS-2003. For these settlements, the list of households had to be prepared in the field. In the case of small settlements (less than 250 households), the entire settlement was listed. In the case of the small number of settlements in which there were more than 250 households, 250 households were listed and an estimate of the remaining number of households in the settlement was obtained through a quick count.

### **Listing and Mapping Activities**

Although the SIS had dwelling lists for many clusters, they did not have the corresponding maps. For this reason, the selected clusters had to be formed with streets that were not always adjacent to each other. Moreover, the lists provided by the SIS did not reflect changes that may have occurred during the period from the 2000 or 2002 to the survey date. Two types of changes were possible: those that could be updated during listing, such as the construction of a new building on the street, a change in the use of a building (e.g., a flat can be used as an office instead of a dwelling), or changes in the names of streets, and those that were more problematic, e.g., the appearance of new quarters in urban centers.

In an effort to develop strategies for dealing with these as well as other possible problems that might arise, a pilot listing activity was undertaken in the capital, Ankara, before the actual listing activity began. The final listing forms, sketch map formats, and listing and mapping manuals were developed based on this pilot activity.

Forty university students/graduates were trained for the main listing activity. Listing teams were formed following a three-day training program in the beginning of November 2003. Each team was provided with maps describing the location of the settlements they were expected to visit, as well as other materials needed for the listing. Sixteen listing teams were formed, each including one mapper and one lister. The listing operation started on 5<sup>th</sup> of November and it was carried under the supervision of the research assistants and regional coordinators from the Hacettepe Institute of Population Studies.

The cluster (standard segment) size was around 100 households (50 households for İstanbul metropolitan) for most of the clusters in urban areas. Only five urban clusters had extremely low numbers of households; in order to obtain 100 households in these clusters,

adjacent streets were added to the original cluster. In some of the selected villages, the total populations were too small, and the original cluster did not include 100 households. In these cases, the village that was nearest to the selected village was included in the sample, and the names of these villages were provided to the listing teams; the lists of 100 households were completed from the two neighboring villages.

The listing operation was implemented in three stages due to seasonal conditions and completed in April 2004. Overall, the quality of the listing work produced by the listers was good although it varied somewhat largely in response to problems the listing teams experienced in working in some geographic areas. Finally, ten clusters were not listed due to problems of accessibility; information on these clusters is presented later in this Appendix.

## **B.6 Questionnaire Development and Pre-test**

### **Questionnaires**

Two main types of questionnaires were used to collect the TDHS-2003 data: the Household Questionnaire and the Individual Questionnaire for ever-married women of reproductive ages. The contents of these questionnaires were based on the DHS Model "A" Questionnaire, which was designed for the DHS program for use in countries with high contraceptive prevalence. Additions, deletions and modifications were made to the DHS model questionnaire in order to collect information particularly relevant to Turkey. Attention also was paid to ensuring the comparability of the TDHS-2003 findings with previous demographic surveys carried out by the Hacettepe Institute of Population Studies. In the process of designing the TDHS-2003 questionnaires, national and international population and health agencies were consulted for their comments.

All TDHS-2003 questionnaires were developed in Turkish and translated into English. English versions of the Household and Individual questionnaires are reproduced in Appendix E.

The Household Questionnaire was used to enumerate all usual members of and visitors to the selected households and to collect information relating to the socioeconomic position of the households. In the first part of the Household Questionnaire, basic information was collected on the age, sex, educational attainment, recent migration and residential mobility, employment, marital status, and relationship to the head of household of each person listed as a household member or visitor. The objective of the first part of the Household Questionnaire was to obtain the information needed to identify women who were eligible for the individual interview as well as to provide basic demographic data for Turkish households. The second part of the Household Questionnaire included questions on never married women age 15-49, with the objective of collecting information on basic background characteristics of women in this age group. The third section was used to collect information on the welfare of the elderly people. The final section of the Household Questionnaire was used to collect information on housing characteristics, such as the number of rooms, the flooring material, the source of water, and the type of toilet facilities, and on the household's ownership of a variety of consumer goods. This section also incorporated a module that was only administered in İstanbul metropolitan households, on house ownership, use of municipal facilities and the like, as well as a module that was used to collect information, from one-half of households, on salt iodization. In households where salt was present, test kits

were used to test whether the salt used in the household was fortified with potassium iodine or potassium iodate, i.e. whether salt was iodized.

The Individual Questionnaire for ever-married women obtained information on the following subjects:

- Background characteristics
- Reproduction
- Marriage
- Knowledge and use of family planning
- Maternal care and breastfeeding
- Immunization and health
- Fertility preferences
- Husband's background
- Women's work and status
- Sexually transmitted diseases and AIDS
- Maternal and child anthropometry.

The Individual Questionnaire also included a monthly calendar, which was used to record fertility, contraception, and marriage for a period of 6 to 6.5 years (depending on the month of interview) beginning in January 1998 up to the survey month. In addition, fieldwork teams measured the heights and weights of children under age five and of all women at ages 15-49.

### **Pre-test**

In July 2004, a three-day pre-test was conducted to ensure that the questions in the TDHS-2003 questionnaires were in a logical sequence, that the wording of the questions was comprehensible, appropriate and meaningful, and that the pre-coded answers were adequate.

Eleven interviewers were trained at the Hacettepe Institute of Population Studies for a period of ten days. The training period included both classroom training and interviews in the field. The interviewers were mostly university students and graduates. In addition to the interviewers, research assistants, who would later become supervisors and regional coordinators, also received training.

Fieldwork for the pre-test was carried out in one district in central Ankara, one district in squatter housing areas of Ankara, and one village in Ankara province. A total of 176 households and 123 ever-married women interviews were completed during the pre-test. Frequency distributions and cross tabulations were obtained shortly after the completion of the interviews. Based on the evaluation of these results and on the feedback obtained from the interviewers, as well as from the Ministry of Health, several minor changes were made to the TDHS-2003 questionnaires.



## **B.7 Data Collection Activities**

### **Staff Recruitment and Training**

Candidates for the positions of interviewers, field editors, supervisors and measurers were solicited in announcements sent to all universities in Ankara. All candidates for the field staff positions were interviewed in four groups by the staff of the Institute of Population Studies using interview guidelines prepared for this purpose. Individuals who met a number of the requirements and had the necessary qualifications were accepted into the training program.

All candidates for the field staff positions were at least high school graduates and the majority was university students and university graduates. Previous survey experience was not among the qualifications for the candidates for the position of interviewers in order to ensure that the trainees had no biases that might result from their previous experience. Approximately 120 applicants were accepted for the training program.

Training of the candidates for the fieldwork positions was conducted in November 2003 for three weeks at the Hacettepe Institute of Population Studies. The training program included general lectures related to the demographic situation in Turkey, family planning and mother and child health, questionnaire training, role playing and mock interviews, field practice in areas not covered in the survey and quizzes to test the progress and capabilities of the candidates. A variety of materials were used during the training sessions, including manuals for supervisors and editors, and for interviewers.

All trainees received the same classroom training during the first two weeks of the training period; at the end of the third week, supervisors, field editors, and measurers were selected from among the candidates, and a number of unsuccessful candidates were eliminated at this stage. Separate classroom training sessions were organized for supervisors, field editors, and measurers.

After the completion of classroom training, a two-day pilot study was conducted in the urban and rural areas of Ankara to complement the training program. Based on the performance of candidates during the training and pilot study, 98 individuals were selected for the main fieldwork activities.

### **Fieldwork**

Fieldwork for the TDHS-2003, including initial interviews, call-backs and re-interviews began in the first week of December 2003, and was completed at the middle of May 2004. Fieldwork teams visited 80 of the 81 provinces in Turkey.

Fieldwork activities were completed in four stages (Table B.4). In the first stage, data collection was carried out by 14 teams, each consisting of a supervisor, a field editor, a measurer, and 4 or 5 female interviewers, depending on the workload of that specific team. The first stage of the fieldwork was completed by the end of January 2004, at which point a number of fieldwork staff, as agreed initially, discontinued working in the field. Six new teams were set up from among the staff of the 14 teams that had worked in the first stage of fieldwork. In the first two stages, 60 percent of all clusters were covered by fieldwork teams. The teams at the second and following stages had the same composition as those in the first stage. These teams continued with data collection activities until the mid of May 2004.

Table B.4 Stages of fieldwork, completed number of clusters in each stage, and number of teams in each stages

Stages	Completed		
	Percentage of clusters	Number of clusters	Number of teams
First	45.5	313	14
Second	15.0	103	6
Third	21.8	150	8
Fourth	17.7	122	5
Total	100.0	688	33

The fieldwork was planned by taking into consideration the climatic conditions in Turkey. Therefore, in the first months the fieldwork was concentrated in the provinces located in the West, the South and the Central Anatolia regions where the winter conditions were expected not to have adverse effects on field operations. The North and the Eastern Anatolia provinces were included to the fieldwork as time passed. The fieldwork was finalized without any interruptions in the period under consideration.

Senior academic staff of the Institute was responsible for visiting the fieldwork teams in turn, checking the quality of data collected, and reporting periodically to the field director in Ankara.

A total of 700 clusters were selected for the TDHS-2003 sample. Of these, interviews were successfully completed in 688 clusters. Due to problems of access, 10 clusters were not listed and, consequently, were not visited by the fieldwork teams; in addition, two clusters that had been listed could not be visited by the fieldwork teams.

### **B.8 Data Processing and Analysis**

The questionnaires were returned to the Hacettepe Institute of Population Studies by the fieldwork teams for data processing as soon as interviews were completed in a province. The office editing staff checked that the questionnaires for all the selected households and eligible respondents were returned from the field.

The data were entered and edited on microcomputers using the Census and Survey Processing System (CSPRO) software. CSPRO is designed to fulfill the census and survey data processing needs of data-producing organizations worldwide. CSPRO is developed by MEASURE partners, the U.S. Bureau of the Census, ORC Macro's MEASURE DHS+ project, and SerPro S.A.. CSPRO allows range, skip, and consistency errors to be detected and corrected at the data entry stage. The machine entry and editing activities were initiated within three weeks after the beginning of the fieldwork, and were completed a week after the completion of the fieldwork.

During data entry process, full verification was reached by entering each questionnaire to the computers twice by different data editors.

## **B.9 Calculation of Sample Weights**

As mentioned earlier, the TDHS-2003 sample is not a self-weighted one. In particular, a disproportionate number of sample units were chosen from some of the strata, since there would have been inadequate numbers of observations for these areas if the target number of households had been proportionally allocated across regions. The following describes the procedure for calculating the weights to be used in the analysis of the TDHS-2003 results. Since the final selection was not implemented proportionally in strata, and since there was some variation in urban and rural non-response rates, separate weights are calculated for each of the 40 strata.

The major component of the weight is the reciprocal of the sampling fraction employed in calculating the number of units in that particular stratum:

$$W_h = 1 / f_h$$

The term  $f(h)$ , the sampling fraction at the  $h^{th}$  stratum, is the product of the probabilities of selection at every stage in a stratum:

$$f_h = P_{1h} * P_{2h} * P_{3h}$$

where  $P_{ih}$  is the probability of the sample unit in the  $i$ -th sample stage for the  $h$ -th strata.

A second component taken into account in the calculation of the weights is the level of nonresponse for the household and the individual interviews. The adjustment for household nonresponse is equal to the inverse value of:

$$R_{hh} = \text{Completed households/Eligible households.}$$

Eligible households include households where interviews were completed, households where there were no competent respondents, households where interviews were postponed and eventually not completed, refusals, and those dwellings that were not found by the fieldwork teams.

Similarly, the adjustment for non-response in the women's survey is equal to the inverse value of:

$$R_{ww} = \text{Completed women questionnaires/Eligible women.}$$

Approximately half of the households were selected for some sets of questions for both in household questionnaires and in individual questionnaires. The rule for the selection of a household for a half sample was very simple. If the cluster was even-numbered, then the households whose number was even were selected for half samples or vice versa. A separate set

of sampling weights was calculated for the half samples by following procedures similar to those described above. For the half samples, the adjustment for nonresponse is defined as:

$$R_{hs} = \text{Completed questionnaires for half samples} / \text{Eligible households (women) for half sample}$$

The weights for the subregions regions and the factors compensating for nonresponse are shown in Table B.5.1 for women and Table B.5.2 for half sample.

The weights for the TDHS-2003 also include an adjustment for the 12 missing clusters.

The unadjusted weights for the households were calculated by multiplying the above factors for each stratum; they were then standardized by multiplying these weights by the ratio of the number of completed interviewed households to the total unadjusted weighted number of households. A similar standardization procedure was followed in obtaining the weights for the individual women's and half sample data. The final weights for households and individual women and the half sample are shown in Table B.6.

Table B.5.1. Design weights and nonresponse factors

Design weights and nonresponse factors by strata for the women, Turkey 2003

Strata	Region	NUTS 1 Region	Residence	Inverse of sampling fraction	Household level	Women level
1	West	İstanbul	Urban/Metropol/Slum	1160555 / 960	891 / 779	672 / 630
2	West	İstanbul	Urban/Metropol/Non-slum	1587651 / 960	870 / 682	478 / 449
3	West	İstanbul	Urban	24989 / 100	68 / 63	52 / 50
4	West	İstanbul	Rural	76858 / 60	46 / 46	35 / 34
5	West	West Marmara	Urban	469931 / 500	410 / 391	285 / 269
6	West	West Marmara	Rural	362247 / 240	220 / 218	119 / 115
7	West	Aegean	Urban/Metropol	685892 / 400	348 / 300	195 / 183
8	West	Aegean	Urban	686133 / 150	144 / 137	96 / 94
9	West	Aegean	Rural	667273 / 240	211 / 204	139 / 135
10	Central	Aegean	Urban	202772 / 150	129 / 127	94 / 89
11	Central	Aegean	Rural	211704 / 60	48 / 47	50 / 48
12	West	East Marmara	Urban/Metropol	352876 / 400	348 / 300	225 / 200
13	West	East Marmara	Urban	129118 / 100	83 / 75	46 / 46
14	West	East Marmara	Rural	109307 / 60	33 / 33	27 / 26
15	West	East Marmara	Urban/Earthquake	377921 / 100	90 / 86	70 / 62
16	West	East Marmara	Rural/Earthquake	148605 / 60	56 / 56	39 / 38
17	Central	East Marmara	Urban	182284 / 100	86 / 85	68 / 65
18	Central	East Marmara	Rural	65446 / 60	45 / 45	21 / 21
19	Central	East Marmara	Urban/Earthquake	47999 / 100	80 / 77	57 / 55
20	Central	East Marmara	Rural/Earthquake	83237 / 60	55 / 55	44 / 43
21	Central	West Anatolia	Urban/Metropol	915073 / 500	451 / 386	287 / 260
22	Central	West Anatolia	Urban	431779 / 150	128 / 124	99 / 99
23	Central	West Anatolia	Rural	298404 / 240	173 / 172	116 / 107
24	South	Mediterranean	Urban/Metropol	276431 / 400	361 / 349	276 / 270
25	South	Mediterranean	Urban	1052242 / 900	808 / 734	593 / 557
26	South	Mediterranean	Rural	681896 / 540	470 / 446	302 / 286
27	Central	Central Anatolia	Urban	523267 / 500	457 / 438	354 / 343
28	Central	Central Anatolia	Rural	373756 / 240	210 / 205	162 / 159
29	North	West Black Sea	Urban	336258 / 500	427 / 395	275 / 267
30	North	West Black Sea	Rural	318422 / 240	207 / 204	156 / 153
31	Central	West Black Sea	Urban	224473 / 200	180 / 176	138 / 136
32	Central	West Black Sea	Rural	201222 / 90	82 / 82	60 / 59
33	North	East Black Sea	Urban	310851 / 600	497 / 474	362 / 355
34	North	East Black Sea	Rural	349165 / 240	203 / 199	136 / 126
35	East	Northeast Anatolia	Urban	212359 / 500	462 / 452	392 / 384
36	East	Northeast Anatolia	Rural	218260 / 240	200 / 199	158 / 151
37	East	Central East Anatolia	Urban	371366 / 500	478 / 449	383 / 371
38	East	Central East Anatolia	Rural	257644 / 240	227 / 220	208 / 195
39	East	Southeast Anatolia	Urban	756933 / 1000	922 / 877	762 / 742
40	East	Southeast Anatolia	Rural	356146 / 480	455 / 449	416 / 403

Table B.5.2 Design weights and nonresponse factors: half sample

Design weights and nonresponse factors by strata for the half samples, Turkey 2003

Strata	Region	NUTS 1 Region	Residence	Inverse of sampling fraction	Household level	Women level
1	West	İstanbul	Urban/Metropol/Slum	2 * 1160555 / 960	437 / 387	330 / 307
2	West	İstanbul	Urban/Metropol/Non-slum	2 * 1587651 / 960	438 / 346	234 / 216
3	West	İstanbul	Urban	2 * 24989 / 100	35 / 32	30 / 29
4	West	İstanbul	Rural	2 * 76858 / 60	21 / 21	17 / 16
5	West	West Marmara	Urban	2 * 469931 / 500	209 / 201	147 / 138
6	West	West Marmara	Rural	2 * 362247 / 240	112 / 111	61 / 61
7	West	Aegean	Urban/Metropol	2 * 685892 / 400	169 / 151	96 / 91
8	West	Aegean	Urban	2 * 686133 / 150	72 / 69	49 / 48
9	West	Aegean	Rural	2 * 667273 / 240	106 / 104	78 / 76
10	Central	Aegean	Urban	2 * 202772 / 150	65 / 65	49 / 46
11	Central	Aegean	Rural	2 * 211704 / 60	21 / 20	23 / 23
12	West	East Marmara	Urban/Metropol	2 * 352876 / 400	175 / 150	106 / 95
13	West	East Marmara	Urban	2 * 129118 / 100	44 / 41	27 / 27
14	West	East Marmara	Rural	2 * 109307 / 60	17 / 17	13 / 12
15	West	East Marmara	Urban/Earthquake	2 * 377921 / 100	44 / 43	39 / 36
16	West	East Marmara	Rural/Earthquake	2 * 148605 / 60	27 / 27	22 / 22
17	Central	East Marmara	Urban	2 * 182284 / 100	45 / 44	38 / 37
18	Central	East Marmara	Rural	2 * 65446 / 60	23 / 23	11 / 11
19	Central	East Marmara	Urban/Earthquake	2 * 47999 / 100	41 / 41	30 / 30
20	Central	East Marmara	Rural/Earthquake	2 * 83237 / 60	28 / 28	22 / 22
21	Central	West Anatolia	Urban/Metropol	2 * 915073 / 500	228 / 195	148 / 137
22	Central	West Anatolia	Urban	2 * 431779 / 150	67 / 66	51 / 51
23	Central	West Anatolia	Rural	2 * 298404 / 240	85 / 84	69 / 62
24	South	Mediterranean	Urban/Metropol	2 * 276431 / 400	179 / 169	134 / 133
25	South	Mediterranean	Urban	2 * 1052242 / 900	408 / 380	311 / 292
26	South	Mediterranean	Rural	2 * 681896 / 540	234 / 224	145 / 134
27	Central	Central Anatolia	Urban	2 * 523267 / 500	228 / 216	170 / 165
28	Central	Central Anatolia	Rural	2 * 373756 / 240	106 / 102	86 / 85
29	North	West Black Sea	Urban	2 * 336258 / 500	206 / 191	136 / 129
30	North	West Black Sea	Rural	2 * 318422 / 240	101 / 100	77 / 76
31	Central	West Black Sea	Urban	2 * 224473 / 200	94 / 92	73 / 72
32	Central	West Black Sea	Rural	2 * 201222 / 90	41 / 41	28 / 27
33	North	East Black Sea	Urban	2 * 310851 / 600	252 / 246	191 / 187
34	North	East Black Sea	Rural	2 * 349165 / 240	103 / 100	70 / 64
35	East	Northeast Anatolia	Urban	2 * 212359 / 500	230 / 225	183 / 179
36	East	Northeast Anatolia	Rural	2 * 218260 / 240	100 / 99	81 / 77
37	East	Central East Anatolia	Urban	2 * 371366 / 500	239 / 222	194 / 190
38	East	Central East Anatolia	Rural	2 * 257644 / 240	112 / 109	109 / 104
39	East	Southeast Anatolia	Urban	2 * 756933 / 1000	458 / 439	375 / 369
40	East	Southeast Anatolia	Rural	2 * 356146 / 480	229 / 225	209 / 202

Table B.6. Final sample weights

Final weights by strata, Turkey 2003

Strata	Region	NUTS 1 Region	Residence	Household weight in entire sample	Women weight in entire sample	Household weight in half sample	Women weight in half sample
1	West	İstanbul	Urban/Metropol/Slum	1.032975	1.076474	1.025306	1.071969
2	West	İstanbul	Urban/Metropol/Non-slum	1.596013	1.659981	1.592331	1.677833
3	West	İstanbul	Urban	0.268666	0.272980	0.273714	0.275406
4	West	İstanbul	Rural	0.956966	0.962433	0.962123	0.994289
5	West	West Marmara	Urban	0.775002	0.802196	0.772645	0.800518
6	West	West Marmara	Rural	1.137929	1.150401	1.143873	1.112580
7	West	Aegean	Urban/Metropol	1.485965	1.546953	1.441432	1.479031
8	West	Aegean	Urban	3.591818	3.583791	3.585003	3.559570
9	West	Aegean	Rural	2.291544	2.305124	2.270295	2.266295
10	Central	Aegean	Urban	1.025788	1.058475	1.015326	1.051955
11	Central	Aegean	Rural	2.692010	2.739621	2.782636	2.706509
12	West	East Marmara	Urban/Metropol	0.764496	0.840259	0.773303	0.838945
13	West	East Marmara	Urban	1.067484	1.042909	1.040752	1.012279
14	West	East Marmara	Rural	1.814642	1.841054	1.824420	1.922384
15	West	East Marmara	Urban/Earthquake	2.954615	3.259059	2.904523	3.060484
16	West	East Marmara	Rural/Earthquake	1.850288	1.855263	1.860258	1.809366
17	Central	East Marmara	Urban	1.377795	1.408203	1.400228	1.398730
18	Central	East Marmara	Rural	0.814869	0.796109	0.819259	0.796846
19	Central	East Marmara	Urban/Earthquake	0.372553	0.377212	0.360515	0.350652
20	Central	East Marmara	Rural/Earthquake	1.036388	1.036076	1.041972	1.013466
21	Central	West Anatolia	Urban/Metropol	1.597460	1.722755	1.607218	1.688764
22	Central	West Anatolia	Urban	2.219800	2.168697	2.194777	2.134732
23	Central	West Anatolia	Rural	1.067723	1.130884	1.079977	1.169028
24	South	Mediterranean	Urban/Metropol	0.534028	0.533328	0.549772	0.538752
25	South	Mediterranean	Urban	0.988958	1.028638	0.969779	1.004624
26	South	Mediterranean	Rural	1.052607	1.085906	1.049071	1.104133
27	Central	Central Anatolia	Urban	0.815738	0.822517	0.829705	0.831461
28	Central	Central Anatolia	Rural	1.191784	1.186317	1.215547	1.196202
29	North	West Black Sea	Urban	0.543111	0.546506	0.544785	0.558634
30	North	West Black Sea	Rural	1.005744	1.001856	1.006473	0.991819
31	Central	West Black Sea	Urban	0.857532	0.850111	0.861320	0.849391
32	Central	West Black Sea	Rural	1.670282	1.659488	1.679282	1.693834
33	North	East Black Sea	Urban	0.405822	0.404297	0.398618	0.396006
34	North	East Black Sea	Rural	1.108709	1.169152	1.125501	1.197338
35	East	Northeast Anatolia	Urban	0.324309	0.323444	0.326088	0.324255
36	East	Northeast Anatolia	Rural	0.780347	0.797725	0.788514	0.806783
37	East	Central East Anatolia	Urban	0.590703	0.595771	0.600574	0.596441
38	East	Central East Anatolia	Rural	0.827499	0.862345	0.828494	0.844570
39	East	Southeast Anatolia	Urban	0.594489	0.596458	0.593126	0.586280
40	East	Southeast Anatolia	Rural	1.032975	1.076474	1.025306	1.071969

## **B.10 Coverage of the Sample**

The results of sample implementation for the household and the individual interviews for the country as a whole, for urban and rural areas, and for the five regions of Turkey are shown in Tables B.7.1 and for NUTS 1 regions in Table B.7.2. The results indicate that, of the 13,049 households selected, the TDHS fieldwork teams successfully completed interviews with 10,836 (83 percent). The main reasons that eligible households were not interviewed were that some of the listed dwelling units were found to be vacant at the time of the interview or the household was away for an extended period. A total of 11,659 households were located and visited, of which 10,836 households were successfully interviewed. Overall, the household response rate was calculated as 93 percent.

The household response rate was higher in rural areas than in urban areas and highest in the East, North and South regions. Among NUTS 1 regions the response rates in İstanbul is the lowest with 84 percent whereas it is more than 98 percent in Northeast Anatolia.

In the interviewed households, 8,477 eligible women were identified, of whom 96 percent were interviewed. Among the small number of eligible women not interviewed in the survey, the principal reason for non-response was the failure to find the woman at home after repeated visits to the household.

The eligible woman response rate was similar in urban and rural areas; the rates for the five regions were 3 percent within each other. Surprisingly, the response rate for eligible women in İstanbul (95 percent) is not the lowest value among the NUTS 1 regions. The response rates of 12 NUTS 1 ranged between 93 and 98 percent. The highest response rate was calculated for the West Blacksea region and the lowest was calculated for the West Anatolia region.

The overall response rate for women in the TDHS-2003 was calculated as 89 percent. It ranged from 83 percent in the Central region to 93 percent in the East region. In terms of NUTS 1 regions, the overall response rates ranged from 79 percent (İstanbul) to 96 percent (Northeast Anatolia region).



Table B.7.1 Sample implementation according to residence and region

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to urban-rural residence and region, Turkey 2003

Result	Residence		Region				Total	
	Urban	Rural	West	South	Central	North		East
<b>Selected households</b>								
Completed (C)	81.6	87.4	79.0	85.1	83.0	80.2	89.2	83.0
Household present but no competent respondent at home (HP)	2.9	1.2	3.4	3.1	2.1	1.8	1.3	2.5
Postponed (P)	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Refused (R)	4.4	0.4	6.3	2.4	2.0	1.8	1.7	3.4
Dwelling not found (DNF)	0.3	0.2	0.4	0.6	0.0	0.3	0.2	0.3
Household absent (HA)	5.0	7.4	4.7	4.2	8.0	9.9	3.6	5.6
Dwelling vacant/address not a dwelling (DV)	5.4	3.1	5.5	4.6	4.6	6.0	3.6	4.8
Dwelling destroy (DD)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Partly completed (PC)	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.1
Other (O)	0.1	0.2	0.3	0.1	0.1	0.1	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Number of sampled households	9,754	3,295	4,267	1,797	2,433	1,587	2,965	13,049
Household response rate (HRR) <sup>1</sup>	91.3	97.9	88.3	93.3	95.1	95.4	96.4	92.9
<b>Eligible women</b>								
Completed (EWC)	95.5	95.9	94.1	95.0	95.7	97.0	96.9	95.6
Not at home (EWNH)	2.4	3.1	3.1	2.7	2.7	2.5	2.0	2.6
Postponed (EWP)	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.1
Refused (EWR)	1.3	0.0	1.7	1.0	0.7	0.1	0.6	1.0
Partly completed (EWPC)	0.4	0.3	0.6	0.9	0.3	0.0	0.2	0.4
Other (EWO)	0.3	0.6	0.4	0.3	0.3	0.4	0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Number of women	6,259	2,188	2,478	1,171	1,550	929	2,319	8,447
Eligible women response rate (EWRR) <sup>2</sup>	95.5	95.9	94.1	95.0	95.7	97.0	96.9	95.6
Overall response rate (ORR) <sup>3</sup>	87.1	93.9	83.0	88.7	91.0	92.5	93.4	88.8

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, postponed, refused, dwelling not found and Partly completed. The eligible woman response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed and "other." The overall response rate is the product of the household and woman response rates.

<sup>1</sup> Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + P + R + DNF + PC}$$

<sup>2</sup> Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{EWC}{EWC + EWNH + EWP + EWR + EWPC + EWO}$$

<sup>3</sup> The overall response rate (ORR) is calculated as:

$$ORR = HRR * EWRR$$

Table B.7.2 Sample implementation according to NUTS 1 regions

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to NUTS 1 regions, Turkey 2003

Result	İstan- bul	West Mar- mara	Ae- gean	East Mar- mara	West Ana- tolia	Mediterranean	Central Ana- tolia	West Black Sea	East Black Sea	North- east Ana- tolia	Central East Ana- tolia	South- east Ana- tolia	Total
<b>Selected households</b>													
Completed (C)	76.4	84.6	81.8	79.0	79.0	85.1	86.7	82.8	79.5	91.2	90.3	87.8	83.0
Household present but no competent respondent at home (HP)	5.3	0.4	1.7	1.8	3.6	3.1	2.0	1.2	2.4	0.3	3.1	1.0	2.5
Postponed (P)	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	8.7	1.7	4.1	3.9	4.3	2.4	0.9	2.1	0.8	0.8	1.5	2.3	3.4
Dwelling not found (DNF)	0.3	0.7	0.3	0.4	0.0	0.6	0.1	0.4	0.0	0.3	0.1	0.1	0.3
Household absent (HA)	3.8	8.6	5.7	6.3	7.3	4.2	7.1	7.6	11.1	4.8	3.0	3.4	5.6
Dwelling vacant/address not a dwelling (DV)	4.5	3.9	5.5	8.4	5.4	4.6	3.0	5.7	6.1	2.5	1.9	5.0	4.8
Dwelling destroy (DD)	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Partly completed (PC)	0.4	0.1	0.4	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1
Other (O)	0.5	0.0	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.3	0.2
Total	100 2,05	100	100	100	100	100	100	100	100	100	100	100	100 13,04
Number of sampled households	6	720	996	1,028	863	1,797	742	1,035	847	714	741	1,510	9
Household response rate (HRR)	83.7	96.7	92.6	92.7	90.7	93.3	96.4	95.6	96.1	98.3	94.9	96.3	92.9
<b>Eligible women</b>													
Completed (EWC)	94.0	95.0	95.6	93.1	92.8	95.0	97.3	97.8	96.6	97.3	95.8	97.2	95.6
Not at home (EWNH)	2.8	3.2	1.9	4.7	4.6	2.7	1.6	1.9	2.6	2.4	3.0	1.3	2.6
Postponed (EWP)	0.2	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Refused (EWR)	1.8	0.7	1.6	1.7	1.4	1.0	0.4	0.2	0.0	0.0	0.3	1.1	1.0
Partly completed (EWPC)	0.8	0.5	0.3	0.0	0.6	0.9	0.4	0.0	0.0	0.0	0.2	0.3	0.4
Other (EWO)	0.3	0.5	0.5	0.5	0.0	0.3	0.4	0.2	0.8	0.4	0.7	0.2	0.4
Total	100 1,23	100	100	100	100	100	100	100	100	100	100	100	100
Number of women	7	404	574	597	502	1,171	516	629	498	550	591	1,178	8,447
Eligible women response rate (EWRR)	94.0	95.0	95.6	93.1	92.8	95.0	97.3	97.8	96.6	97.3	95.8	97.2	95.6
Overall response rate (ORR)	78.7	91.9	88.6	86.3	84.2	88.7	93.8	93.5	92.9	95.7	90.9	93.6	88.8

A. Sinan Türkyılmaz

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the TDHS-2003 to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the TDHS-2003 is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the TDHS-2003 sample is the result of a three-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the TDHS-2003 is the ISSA Sampling Error Module (SAMPERR). This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate,  $r = y/x$ , where  $y$  represents the total sample value for variable  $y$ , and  $x$  represents the total number of cases in the group or subgroup under consideration. The variance of  $r$  is computed using the formula given below, with the standard error being the square root of the variance in which:

$$var(r) = \frac{1-f}{x^2} \sum_{h=1}^H \left[ \frac{m_h}{m_h-1} \left( \sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - r \cdot x_{hi}, \text{ and } z_h = y_h - r \cdot x_h$$

where  $h$  represents the stratum which varies from 1 to H,  
 $m_h$  is the total number of enumeration areas selected in the  $h^{\text{th}}$  stratum,  
 $y_{hi}$  is the sum of the weighted values of variable  $y$  in EA  $i$  in the  $h^{\text{th}}$  stratum,  
 $x_{hi}$  is the sum of the weighted number of cases in EA  $i$  in the  $h^{\text{th}}$  stratum, and  
 $f$  is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the TDHS, there were 688 non-empty clusters. Hence, 688 replications were created. The variance of a rate  $r$  is calculated as follows:

$$var(r) = \frac{1}{k(k-1)} \sum_{i=1}^k (r_i - r)^2$$

in which

$$r_i = k r - (k-1) r_{(i)}$$

where  $r$  is the estimate computed from the full sample of 688 clusters,  
 $r_{(i)}$  is the estimate computed from the reduced sample of 687 clusters ( $i^{\text{th}}$  cluster excluded), and  
 $k$  is the total number of clusters.

In addition to the standard error, SAMPERR computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. SAMPERR also computes the relative error and confidence limits for the estimates.

Sampling errors for the TDHS-2003 are calculated for a number of variables considered to be of primary interest. Results for women are presented in this appendix for the country as a whole, for urban and rural areas, for each of the five regions, and for the twelve NUTS1 regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table C.1. Tables C.2-C.21 present the value of the statistic (R), its standard error (SE),

the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits ( $R \pm 2SE$ ), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1).

In general, the relative standard errors for most estimates for the country as a whole are small, except for estimates of very small proportions. There are some differentials in the relative standard errors for the estimates for sub-populations. For example, for the contraceptive prevalence rate (CPR), i.e. the proportion of currently married women aged 15-49 who were using any method of contraception at the time of the interview, the relative standard error for the country as a whole, for urban areas, and for rural areas are 0.6 percent, 0.7 percent, and 1.3 percent, respectively.

To obtain the 95 percent confidence limits for the CPR, one adds and subtracts twice the standard error to the sample estimate, i.e.  $0.710 \pm 2 \times 0.006$ . The results indicate that there is a high probability (95 percent) that the true value of the CPR for the country as a whole lies between 69.8 percent and 72.1 percent.

Table C.1 List of selected variables for sampling errors, Turkey 2003

Variable	Estimate	Base population
Urban residence	Proportion	Ever married women 15-49
No education	Proportion	Ever married women 15-49
With secondary education or higher	Proportion	Ever married women 15-49
Currently married (in union)	Proportion	Ever married women 15-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women 40-49	Mean	All women 15-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Knowing any modern contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any contraceptive method	Proportion	Currently married women 15-49
Currently using a modern method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Obtained method from public sector source	Proportion	Currently married women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay birth at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	Ever married women 15-49
Mothers received medical care at delivery	Proportion	Births in last 5 years
Child having health card, seen	Proportion	Children 12-23 months
Child received BCG vaccination	Proportion	Children 12-23 months
Child received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Child received polio vaccination (3 doses)	Proportion	Children 12-23 months
Child received measles vaccination	Proportion	Children 12-23 months
Child fully immunized	Proportion	Children 12-23 months
Height-for-age (-2SD)	Proportion	Children 0-47 months
Weight-for-height (-2SD)	Proportion	Children 0-47 months
Weight-for-age (-2SD)	Proportion	Children 0-47 months
BMI < 18.5	Proportion	Ever married women 15-49
Has heard of HIV/AIDS	Proportion	Ever married women 15-49
Knows about condoms	Proportion	Ever married women 15-49
Knows about limiting partners	Proportion	Ever married women 15-49
Total fertility rate (last 3 years)	Rate	Women-years of exposure to child-bearing
Neonatal mortality (last 5 years)	Rate	Number of births exposed to death
Post-neonatal mortality (last 5 years)	Rate	Number of births exposed to death
Infant mortality (last 5 years)	Rate	Number of births exposed to death
Child mortality (last 5 years)	Rate	Number of births exposed to death
Under-five mortality (last 5 years)	Rate	Number of births exposed to death

Table C.2 Sampling errors: National Sample, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.712	0.006	8075	8075	1.192	0.008	0.700	0.724
No education	0.218	0.008	8075	8075	1.777	0.037	0.202	0.234
With secondary education or higher	0.245	0.009	8075	8075	1.793	0.035	0.227	0.262
Currently married (in union)	0.950	0.003	8075	8075	1.121	0.003	0.945	0.955
Currently pregnant	0.041	0.002	12138	11517	1.049	0.056	0.036	0.046
Children ever born	1.838	0.049	12138	11517	0.789	0.027	1.740	1.937
Children surviving	1.691	0.045	12138	11517	0.795	0.027	1.601	1.782
Children ever born to women 40-49	3.544	0.059	2379	2460	1.274	0.017	3.427	3.661
Knowing any contraceptive method	0.998	0.000	7686	7672	0.757	0.000	0.997	0.999
Knowing any modern contraceptive method	0.995	0.001	7686	7672	0.878	0.001	0.994	0.997
Ever used any contraceptive method	0.900	0.004	7686	7672	1.291	0.005	0.891	0.909
Currently using any contraceptive method	0.710	0.006	7686	7672	1.154	0.008	0.698	0.721
Currently using a modern method	0.425	0.006	7686	7672	1.110	0.015	0.412	0.437
Currently using pill	0.047	0.003	7686	7672	1.098	0.056	0.042	0.052
Currently using IUD	0.202	0.005	7686	7672	1.184	0.027	0.191	0.213
Currently using condom	0.108	0.004	7686	7672	1.245	0.041	0.099	0.116
Currently using injectables	0.004	0.001	7686	7672	1.028	0.190	0.002	0.005
Currently using female sterilization	0.057	0.003	7686	7672	1.093	0.051	0.051	0.063
Currently using periodic abstinence	0.011	0.001	7686	7672	1.043	0.112	0.009	0.014
Currently using withdrawal	0.264	0.006	7686	7672	1.270	0.024	0.251	0.277
Obtained method from public sector source	0.577	0.013	3128	3271	1.455	0.022	0.551	0.603
Want no more children	0.635	0.009	3894	3873	1.210	0.015	0.616	0.654
Want to delay birth at least 2 years	0.136	0.006	3894	3873	1.166	0.047	0.123	0.148
Ideal number of children	2.510	0.020	4029	4038	1.183	0.008	2.469	2.551
Mothers received medical care at delivery	0.830	0.013	4533	4132	1.678	0.015	0.805	0.855
Child having health card, seen	0.537	0.026	807	749	1.397	0.048	0.486	0.589
Child received BCG vaccination	0.877	0.015	807	749	1.203	0.017	0.848	0.907
Child received DPT vaccination (3 doses)	0.644	0.022	807	749	1.267	0.035	0.599	0.688
Child received polio vaccination (3 doses)	0.691	0.019	807	749	1.131	0.028	0.652	0.729
Child received measles vaccination	0.794	0.019	807	749	1.288	0.024	0.755	0.833
Child fully immunized	0.542	0.023	807	749	1.256	0.043	0.496	0.589
Height-for-age (-2SD)	0.122	0.007	4028	3668	1.161	0.056	0.108	0.136
Weight-for-height (-2SD)	0.007	0.002	4028	3668	1.179	0.231	0.004	0.010
Weight-for-age (-2SD)	0.039	0.004	4028	3668	1.168	0.101	0.031	0.047
BMI < 18.5	0.018	0.003	2922	2782	1.093	0.151	0.013	0.024
Has heard of HIV/AIDS	0.881	0.008	4078	4078	1.591	0.009	0.865	0.897
Knows about condoms	0.219	0.008	4078	4078	1.175	0.035	0.204	0.234
Knows about limiting partners	0.215	0.008	4078	4078	1.300	0.039	0.198	0.231
Total fertility rate (last 3 years)	2.231	0.054	NA	32730	1.303	0.024	2.123	2.339
Neonatal mortality (last 5 years)	17.259	2.258	4556	4164	1.045	0.131	12.743	21.775
Post-neonatal mortality (last 5 years)	11.508	1.723	4558	4166	1.050	0.150	8.062	14.954
Infant mortality (last 5 years)	28.767	2.914	4558	4166	1.072	0.101	22.938	34.596
Child mortality (last 5 years)	8.527	1.507	4567	4176	1.068	0.177	5.513	11.540
Under-five mortality (last 5 years)	37.049	3.239	4569	4177	1.080	0.087	30.571	43.526

NA = Not applicable

Table C.3 Sampling errors: Urban Areas, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	1.000	0.000	5976	5752	NA	0.000	1.000	1.000
No education	0.183	0.009	5976	5752	1.896	0.052	0.164	0.202
With secondary education or higher	0.308	0.012	5976	5752	1.940	0.038	0.285	0.331
Currently married (in union)	0.945	0.003	5976	5752	1.125	0.004	0.939	0.952
Currently pregnant	0.037	0.003	8813	8101	1.159	0.070	0.032	0.042
Children ever born	1.727	0.044	8813	8101	0.801	0.026	1.638	1.815
Children surviving	1.605	0.041	8813	8101	0.809	0.026	1.522	1.688
Children ever born to women 40-49	3.270	0.062	1763	1761	1.304	0.019	3.147	3.393
Knowing any contraceptive method	0.999	0.000	5668	5437	0.879	0.000	0.998	1.000
Knowing any modern contraceptive method	0.997	0.000	5668	5437	0.664	0.000	0.996	0.998
Ever used any contraceptive method	0.920	0.005	5668	5437	1.393	0.005	0.910	0.930
Currently using any contraceptive method	0.736	0.007	5668	5437	1.140	0.009	0.723	0.749
Currently using a modern method	0.458	0.008	5668	5437	1.159	0.017	0.443	0.473
Currently using pill	0.050	0.003	5668	5437	1.100	0.064	0.044	0.057
Currently using IUD	0.215	0.006	5668	5437	1.173	0.030	0.202	0.228
Currently using condom	0.121	0.006	5668	5437	1.291	0.046	0.110	0.133
Currently using injectables	0.004	0.001	5668	5437	1.054	0.220	0.002	0.006
Currently using female sterilization	0.059	0.003	5668	5437	1.088	0.058	0.052	0.066
Currently using periodic abstinence	0.012	0.002	5668	5437	1.036	0.123	0.009	0.015
Currently using withdrawal	0.257	0.008	5668	5437	1.369	0.031	0.241	0.273
Obtained method from public sector source	0.564	0.015	2496	2499	1.560	0.027	0.533	0.595
Want no more children	0.635	0.011	2857	2720	1.228	0.017	0.613	0.657
Want to delay birth at least 2 years	0.143	0.008	2857	2720	1.259	0.058	0.127	0.160
Ideal number of children	2.452	0.023	2975	2857	1.246	0.009	2.405	2.498
Mothers received medical care at delivery	0.903	0.013	3062	2722	1.813	0.014	0.877	0.929
Child having health card, seen	0.632	0.031	551	503	1.438	0.049	0.570	0.693
Child received BCG vaccination	0.926	0.017	551	503	1.431	0.018	0.893	0.959
Child received DPT vaccination (3 doses)	0.726	0.027	551	503	1.382	0.038	0.671	0.780
Child received polio vaccination (3 doses)	0.769	0.023	551	503	1.235	0.030	0.723	0.815
Child received measles vaccination	0.844	0.023	551	503	1.438	0.028	0.797	0.891
Child fully immunized	0.629	0.030	551	503	1.385	0.047	0.569	0.688
Height-for-age (-2SD)	0.090	0.007	2717	2414	1.122	0.076	0.076	0.103
Weight-for-height (-2SD)	0.007	0.002	2717	2414	1.190	0.287	0.003	0.011
Weight-for-age (-2SD)	0.028	0.004	2717	2414	1.158	0.141	0.020	0.036
BMI < 18.5	0.019	0.003	2108	1943	1.078	0.174	0.012	0.025
Has heard of HIV/AIDS	0.928	0.009	3004	2881	1.925	0.010	0.909	0.946
Knows about condoms	0.274	0.010	3004	2881	1.248	0.037	0.254	0.294
Knows about limiting partners	0.247	0.010	3004	2881	1.289	0.041	0.227	0.268
Total fertility rate (last 3 years)	2.056	0.057	NA	23118	1.281	0.028	1.941	2.170
Neonatal mortality (last 5 years)	15.277	2.385	3080	2746	0.974	0.156	10.508	20.047
Post-neonatal mortality (last 5 years)	8.151	1.970	3081	2746	1.167	0.242	4.212	12.090
Infant mortality (last 5 years)	23.428	2.984	3081	2746	1.013	0.127	17.461	29.395
Child mortality (last 5 years)	7.153	1.641	3087	2753	1.083	0.229	3.872	10.434
Under-five mortality (last 5 years)	30.413	3.278	3088	2754	1.001	0.108	23.857	36.970

NA = Not applicable



Table C.4 Sampling errors: Rural Areas, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.000	0.000	2099	2323	NA	NA	0.000	0.000
No education	0.305	0.017	2099	2323	1.670	0.055	0.271	0.338
With secondary education or higher	0.087	0.008	2099	2323	1.223	0.087	0.072	0.102
Currently married (in union)	0.962	0.005	2099	2323	1.109	0.005	0.953	0.971
Currently pregnant	0.050	0.005	3191	3434	1.053	0.096	0.041	0.060
Children ever born	2.093	0.125	3191	3434	1.005	0.060	1.843	2.342
Children surviving	1.886	0.111	3191	3434	0.996	0.059	1.664	2.108
Children ever born to women 40-49	4.226	0.121	616	701	1.130	0.029	3.984	4.469
Knowing any contraceptive method	0.995	0.001	2018	2235	0.664	0.001	0.993	0.997
Knowing any modern contraceptive method	0.990	0.002	2018	2235	0.952	0.002	0.986	0.995
Ever used any contraceptive method	0.853	0.009	2018	2235	1.201	0.011	0.834	0.872
Currently using any contraceptive method	0.645	0.013	2018	2235	1.204	0.020	0.619	0.671
Currently using a modern method	0.344	0.011	2018	2235	1.030	0.032	0.322	0.366
Currently using pill	0.039	0.005	2018	2235	1.093	0.120	0.030	0.049
Currently using IUD	0.172	0.010	2018	2235	1.224	0.060	0.151	0.192
Currently using condom	0.074	0.007	2018	2235	1.120	0.088	0.061	0.087
Currently using injectables	0.003	0.001	2018	2235	0.962	0.380	0.001	0.006
Currently using female sterilization	0.051	0.005	2018	2235	1.109	0.106	0.040	0.062
Currently using periodic abstinence	0.008	0.002	2018	2235	1.079	0.263	0.004	0.013
Currently using withdrawal	0.281	0.010	2018	2235	1.029	0.037	0.260	0.301
Obtained method from public sector source	0.620	0.021	632	772	1.095	0.034	0.578	0.663
Want no more children	0.635	0.017	1037	1153	1.163	0.027	0.600	0.669
Want to delay birth at least 2 years	0.117	0.009	1037	1153	0.912	0.078	0.099	0.136
Ideal number of children	2.651	0.042	1054	1181	1.099	0.016	2.567	2.735
Mothers received medical care at delivery	0.689	0.027	1471	1410	1.642	0.039	0.636	0.743
Child having health card, seen	0.344	0.041	256	246	1.259	0.118	0.263	0.425
Child received BCG vaccination	0.777	0.029	256	246	1.019	0.037	0.720	0.835
Child received DPT vaccination (3 doses)	0.475	0.038	256	246	1.125	0.080	0.399	0.551
Child received polio vaccination (3 doses)	0.530	0.035	256	246	1.038	0.066	0.460	0.601
Child received measles vaccination	0.691	0.035	256	246	1.105	0.050	0.622	0.761
Child fully immunized	0.365	0.033	256	246	1.016	0.091	0.299	0.432
Height-for-age (-2SD)	0.184	0.015	1311	1254	1.174	0.080	0.155	0.214
Weight-for-height (-2SD)	0.008	0.003	1311	1254	1.143	0.387	0.002	0.013
Weight-for-age (-2SD)	0.059	0.008	1311	1254	1.140	0.142	0.042	0.076
BMI < 18.5	0.018	0.005	814	839	1.117	0.302	0.007	0.028
Has heard of HIV/AIDS	0.770	0.017	1074	1197	1.328	0.022	0.735	0.804
Knows about condoms	0.087	0.010	1074	1197	1.118	0.110	0.068	0.107
Knows about limiting partners	0.136	0.014	1074	1197	1.296	0.100	0.109	0.163
Total fertility rate (last 3 years)	2.651	0.126	NA	9756	1.326	0.048	2.399	2.903
Neonatal mortality (last 5 years)	21.120	4.733	1476	1418	1.090	0.224	11.655	30.586
Post-neonatal mortality (last 5 years)	18.125	3.365	1477	1420	0.918	0.186	11.396	24.854
Infant mortality (last 5 years)	39.245	6.251	1477	1420	1.084	0.159	26.744	51.747
Child mortality (last 5 years)	11.266	3.088	1480	1423	1.020	0.274	5.090	17.441
Under-five mortality (last 5 years)	50.069	6.956	1481	1424	1.106	0.139	36.158	63.980

NA = Not applicable

Table C.5 Sampling errors: West Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.819	0.009	2331	3286	1.096	0.011	0.802	0.837
No education	0.146	0.011	2331	3286	1.500	0.075	0.124	0.168
With secondary education or higher	0.293	0.016	2331	3286	1.669	0.054	0.262	0.325
Currently married (in union)	0.945	0.005	2331	3286	1.038	0.005	0.936	0.955
Currently pregnant	0.031	0.004	3533	4429	1.095	0.130	0.023	0.039
Children ever born	1.633	0.063	3533	4429	0.536	0.038	1.508	1.758
Children surviving	1.518	0.057	3533	4429	0.525	0.037	1.404	1.631
Children ever born to women 40-49	2.905	0.077	720	1062	1.302	0.027	2.750	3.060
Knowing any contraceptive method	0.999	0.000	2214	3106	0.826	0.000	0.999	1.000
Knowing any modern contraceptive method	0.996	0.001	2214	3106	0.669	0.001	0.995	0.998
Ever used any contraceptive method	0.927	0.005	2214	3106	0.976	0.006	0.916	0.938
Currently using any contraceptive method	0.742	0.009	2214	3106	0.983	0.012	0.724	0.761
Currently using a modern method	0.457	0.010	2214	3106	0.938	0.022	0.437	0.476
Currently using pill	0.048	0.005	2214	3106	1.008	0.095	0.039	0.057
Currently using IUD	0.210	0.008	2214	3106	0.940	0.039	0.193	0.226
Currently using condom	0.127	0.008	2214	3106	1.080	0.060	0.112	0.142
Currently using injectables	0.002	0.001	2214	3106	0.844	0.452	0.000	0.003
Currently using female sterilization	0.061	0.006	2214	3106	1.088	0.091	0.050	0.072
Currently using periodic abstinence	0.012	0.002	2214	3106	0.989	0.193	0.007	0.016
Currently using withdrawal	0.266	0.011	2214	3106	1.141	0.040	0.245	0.287
Obtained method from public sector source	0.506	0.022	1014	1425	1.390	0.043	0.462	0.549
Want no more children	0.638	0.018	1110	1550	1.264	0.029	0.602	0.675
Want to delay birth at least 2 years	0.132	0.011	1110	1550	1.112	0.085	0.110	0.155
Ideal number of children	2.304	0.028	1166	1643	1.131	0.012	2.248	2.359
Mothers received medical care at delivery	0.954	0.012	962	1342	1.509	0.013	0.930	0.978
Child having health card, seen	0.651	0.051	188	271	1.477	0.078	0.549	0.753
Child received BCG vaccination	0.955	0.016	188	271	1.075	0.017	0.923	0.987
Child received DPT vaccination (3 doses)	0.726	0.041	188	271	1.268	0.056	0.644	0.808
Child received polio vaccination (3 doses)	0.791	0.032	188	271	1.071	0.040	0.727	0.854
Child received measles vaccination	0.889	0.025	188	271	1.118	0.028	0.839	0.940
Child fully immunized	0.630	0.043	188	271	1.220	0.068	0.545	0.716
Height-for-age (-2SD)	0.055	0.008	854	1186	0.980	0.149	0.039	0.071
Weight-for-height (-2SD)	0.007	0.003	854	1186	1.203	0.506	0.000	0.013
Weight-for-age (-2SD)	0.019	0.005	854	1186	1.048	0.256	0.009	0.029
BMI < 18.5	0.014	0.004	741	1017	0.979	0.310	0.005	0.022
Has heard of HIV/AIDS	0.923	0.015	1174	1652	1.910	0.016	0.893	0.953
Knows about condoms	0.280	0.014	1174	1652	1.103	0.052	0.251	0.309
Knows about limiting partners	0.249	0.015	1174	1652	1.182	0.060	0.219	0.279
Total fertility rate (last 3 years)	1.879	0.068	NA	12761	0.973	0.036	1.744	2.015
Neonatal mortality (last 5 years)	15.122	4.700	972	1352	1.060	0.311	5.722	24.521
Post-neonatal mortality (last 5 years)	6.965	3.128	972	1352	1.233	0.449	0.708	13.222
Infant mortality (last 5 years)	22.087	5.376	972	1352	1.064	0.243	11.335	32.839
Child mortality (last 5 years)	8.375	2.711	975	1355	0.925	0.324	2.953	13.798
Under-five mortality (last 5 years)	30.277	5.820	975	1355	1.005	0.192	18.637	41.917

NA = Not applicable

Table C.6 Sampling errors: South Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.698	0.014	1113	1028	1.047	0.021	0.669	0.727
No education	0.236	0.025	1113	1028	1.964	0.106	0.186	0.286
With secondary education or higher	0.233	0.021	1113	1028	1.695	0.092	0.190	0.276
Currently married (in union)	0.955	0.006	1113	1028	0.986	0.006	0.943	0.967
Currently pregnant	0.041	0.005	1639	1520	0.907	0.118	0.032	0.051
Children ever born	1.820	0.127	1639	1520	1.062	0.070	1.565	2.075
Children surviving	1.697	0.121	1639	1520	1.089	0.071	1.455	1.938
Children ever born to women 40-49	3.719	0.162	319	293	1.253	0.044	3.394	4.043
Knowing any contraceptive method	0.997	0.002	1061	981	0.983	0.002	0.993	1.000
Knowing any modern contraceptive method	0.995	0.002	1061	981	0.978	0.002	0.991	0.999
Ever used any contraceptive method	0.909	0.010	1061	981	1.125	0.011	0.889	0.929
Currently using any contraceptive method	0.708	0.015	1061	981	1.073	0.021	0.678	0.738
Currently using a modern method	0.448	0.017	1061	981	1.141	0.039	0.413	0.483
Currently using pill	0.039	0.005	1061	981	0.926	0.142	0.028	0.050
Currently using IUD	0.219	0.014	1061	981	1.116	0.065	0.191	0.247
Currently using condom	0.113	0.011	1061	981	1.102	0.095	0.091	0.134
Currently using injectables	0.005	0.003	1061	981	1.250	0.526	0.000	0.011
Currently using female sterilization	0.061	0.007	1061	981	0.928	0.112	0.047	0.075
Currently using periodic abstinence	0.014	0.003	1061	981	0.959	0.245	0.007	0.021
Currently using withdrawal	0.236	0.015	1061	981	1.167	0.065	0.205	0.266
Obtained method from public sector source	0.652	0.024	490	442	1.112	0.037	0.604	0.700
Want no more children	0.618	0.019	535	492	0.891	0.030	0.581	0.655
Want to delay birth at least 2 years	0.133	0.013	535	492	0.853	0.094	0.108	0.158
Ideal number of children	2.775	0.067	550	505	1.174	0.024	2.642	2.908
Mothers received medical care at delivery	0.887	0.027	594	557	1.699	0.031	0.832	0.942
Child having health card, seen	0.624	0.059	96	89	1.172	0.095	0.506	0.742
Child received BCG vaccination	0.952	0.017	96	89	0.794	0.018	0.917	0.986
Child received DPT vaccination (3 doses)	0.714	0.053	96	89	1.107	0.074	0.609	0.819
Child received polio vaccination (3 doses)	0.706	0.055	96	89	1.149	0.078	0.596	0.816
Child received measles vaccination	0.811	0.064	96	89	1.593	0.079	0.683	0.938
Child fully immunized	0.602	0.064	96	89	1.258	0.106	0.474	0.730
Height-for-age (-2SD)	0.104	0.016	533	499	1.105	0.149	0.073	0.135
Weight-for-height (-2SD)	0.004	0.003	533	499	1.066	0.702	0.000	0.010
Weight-for-age (-2SD)	0.028	0.007	533	499	1.066	0.270	0.013	0.043
BMI < 18.5	0.018	0.006	406	379	0.942	0.343	0.006	0.031
Has heard of HIV/AIDS	0.887	0.019	559	513	1.384	0.021	0.850	0.924
Knows about condoms	0.231	0.020	559	513	1.143	0.088	0.191	0.272
Knows about limiting partners	0.216	0.017	559	513	0.993	0.080	0.181	0.251
Total fertility rate (last 3 years)	2.297	0.159	NA	4158	1.429	0.069	1.979	2.616
Neonatal mortality (last 5 years)	18.870	6.174	592	555	1.126	0.327	6.521	31.219
Post-neonatal mortality (last 5 years)	9.725	3.959	593	556	1.045	0.407	1.807	17.642
Infant mortality (last 5 years)	28.595	8.108	593	556	1.215	0.284	12.379	44.810
Child mortality (last 5 years)	1.944	1.368	592	555	NA	0.704	0.000	4.680
Under-five mortality (last 5 years)	30.483	8.031	593	556	1.215	0.263	14.421	46.545

NA = Not applicable

Table C.7 Sampling errors: Central Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.678	0.014	1484	1867	1.185	0.021	0.650	0.707
No education	0.132	0.017	1484	1867	1.892	0.126	0.098	0.165
With secondary education or higher	0.240	0.018	1484	1867	1.582	0.073	0.205	0.276
Currently married (in union)	0.948	0.006	1484	1867	1.101	0.007	0.935	0.961
Currently pregnant	0.039	0.005	2090	2646	1.224	0.137	0.028	0.050
Children ever born	1.773	0.104	2090	2646	1.108	0.059	1.565	1.981
Children surviving	1.626	0.095	2090	2646	1.110	0.058	1.437	1.816
Children ever born to women 40-49	3.431	0.087	497	606	1.085	0.025	3.257	3.606
Knowing any contraceptive method	0.996	0.001	1403	1770	0.391	0.001	0.995	0.997
Knowing any modern contraceptive method	0.994	0.002	1403	1770	0.812	0.002	0.991	0.997
Ever used any contraceptive method	0.924	0.008	1403	1770	1.104	0.008	0.908	0.940
Currently using any contraceptive method	0.742	0.012	1403	1770	1.000	0.016	0.719	0.766
Currently using a modern method	0.466	0.014	1403	1770	1.077	0.031	0.437	0.495
Currently using pill	0.053	0.006	1403	1770	1.044	0.117	0.041	0.066
Currently using IUD	0.252	0.015	1403	1770	1.268	0.058	0.222	0.281
Currently using condom	0.102	0.011	1403	1770	1.308	0.103	0.081	0.124
Currently using injectables	0.004	0.002	1403	1770	1.097	0.463	0.000	0.008
Currently using female sterilization	0.050	0.006	1403	1770	0.953	0.111	0.039	0.061
Currently using periodic abstinence	0.012	0.003	1403	1770	0.886	0.218	0.007	0.017
Currently using withdrawal	0.257	0.015	1403	1770	1.260	0.057	0.228	0.287
Obtained method from public sector source	0.647	0.028	643	828	1.482	0.043	0.591	0.703
Want no more children	0.674	0.017	727	912	0.989	0.026	0.640	0.708
Want to delay birth at least 2 years	0.127	0.015	727	912	1.250	0.122	0.096	0.157
Ideal number of children	2.335	0.036	762	955	1.114	0.015	2.264	2.406
Mothers received medical care at delivery	0.910	0.023	632	813	1.640	0.026	0.863	0.957
Child having health card, seen	0.575	0.067	104	138	1.410	0.117	0.440	0.709
Child received BCG vaccination	0.956	0.020	104	138	1.001	0.021	0.917	0.995
Child received DPT vaccination (3 doses)	0.721	0.051	104	138	1.176	0.070	0.620	0.823
Child received polio vaccination (3 doses)	0.736	0.044	104	138	1.037	0.060	0.648	0.824
Child received measles vaccination	0.903	0.035	104	138	1.110	0.039	0.834	0.973
Child fully immunized	0.610	0.055	104	138	1.164	0.091	0.499	0.720
Height-for-age (-2SD)	0.095	0.011	562	727	0.895	0.120	0.072	0.117
Weight-for-height (-2SD)	0.008	0.005	562	727	1.268	0.568	0.000	0.018
Weight-for-age (-2SD)	0.029	0.007	562	727	0.994	0.239	0.015	0.043
BMI < 18.5	0.030	0.008	469	601	1.007	0.262	0.014	0.046
Has heard of HIV/AIDS	0.935	0.012	768	962	1.314	0.012	0.912	0.958
Knows about condoms	0.191	0.015	768	962	1.069	0.079	0.161	0.221
Knows about limiting partners	0.225	0.020	768	962	1.335	0.090	0.184	0.265
Total fertility rate (last 3 years)	1.864	0.098	NA	7702	1.165	0.053	1.667	2.060
Neonatal mortality (last 5 years)	10.372	4.298	640	829	1.103	0.414	1.775	18.968
Post-neonatal mortality (last 5 years)	10.169	4.132	640	829	0.976	0.406	1.905	18.433
Infant mortality (last 5 years)	20.541	6.117	640	829	1.010	0.298	8.307	32.774
Child mortality (last 5 years)	12.494	4.432	643	834	1.071	0.355	3.629	21.359
Under-five mortality (last 5 years)	32.778	7.288	643	834	1.008	0.222	18.203	47.354

NA = Not applicable

Table C.8 Sampling errors: North Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.491	0.019	901	590	1.122	0.038	0.453	0.528
No education	0.196	0.032	901	590	2.420	0.163	0.132	0.260
With secondary education or higher	0.234	0.024	901	590	1.728	0.104	0.185	0.282
Currently married (in union)	0.950	0.007	901	590	0.931	0.007	0.937	0.964
Currently pregnant	0.029	0.005	1275	868	1.079	0.183	0.019	0.040
Children ever born	1.825	0.120	1275	868	0.877	0.066	1.584	2.065
Children surviving	1.690	0.115	1275	868	0.909	0.068	1.460	1.920
Children ever born to women 40-49	3.405	0.154	339	212	1.635	0.045	3.097	3.714
Knowing any contraceptive method	0.998	0.002	852	561	1.348	0.002	0.994	1.000
Knowing any modern contraceptive method	0.998	0.002	852	561	1.348	0.002	0.994	1.000
Ever used any contraceptive method	0.920	0.012	852	561	1.284	0.013	0.896	0.943
Currently using any contraceptive method	0.719	0.015	852	561	0.946	0.020	0.690	0.748
Currently using a modern method	0.325	0.018	852	561	1.091	0.054	0.290	0.360
Currently using pill	0.031	0.007	852	561	1.117	0.212	0.018	0.045
Currently using IUD	0.108	0.014	852	561	1.277	0.126	0.081	0.135
Currently using condom	0.083	0.011	852	561	1.171	0.133	0.061	0.105
Currently using injectables	0.000	0.000	852	561	NA	NA	0.000	0.000
Currently using female sterilization	0.094	0.009	852	561	0.904	0.096	0.076	0.112
Currently using periodic abstinence	0.015	0.004	852	561	1.049	0.290	0.006	0.024
Currently using withdrawal	0.375	0.015	852	561	0.905	0.040	0.345	0.405
Obtained method from public sector source	0.540	0.040	284	183	1.360	0.075	0.459	0.620
Want no more children	0.634	0.027	433	284	1.153	0.042	0.580	0.687
Want to delay birth at least 2 years	0.107	0.014	433	284	0.924	0.128	0.080	0.135
Ideal number of children	2.460	0.060	454	296	1.299	0.024	2.340	2.580
Mothers received medical care at delivery	0.865	0.065	368	252	2.957	0.075	0.734	0.995
Child having health card, seen	0.647	0.081	64	41	1.320	0.125	0.485	0.809
Child received BCG vaccination	0.915	0.046	64	41	1.311	0.051	0.822	1.000
Child received DPT vaccination (3 doses)	0.707	0.079	64	41	1.362	0.112	0.549	0.866
Child received polio vaccination (3 doses)	0.710	0.071	64	41	1.233	0.101	0.568	0.853
Child received measles vaccination	0.845	0.053	64	41	1.144	0.062	0.739	0.950
Child fully immunized	0.601	0.083	64	41	1.320	0.139	0.434	0.767
Height-for-age (-2SD)	0.130	0.033	323	218	1.608	0.254	0.064	0.195
Weight-for-height (-2SD)	0.007	0.004	323	218	0.877	0.579	0.000	0.015
Weight-for-age (-2SD)	0.022	0.010	323	218	1.272	0.461	0.002	0.043
BMI < 18.5	0.014	0.008	257	171	1.102	0.577	0.000	0.030
Has heard of HIV/AIDS	0.885	0.032	456	298	2.128	0.036	0.821	0.948
Knows about condoms	0.179	0.023	456	298	1.286	0.129	0.133	0.225
Knows about limiting partners	0.175	0.022	456	298	1.228	0.125	0.131	0.219
Total fertility rate (last 3 years)	1.942	0.119	NA	2219	1.145	0.061	1.704	2.180
Neonatal mortality (last 5 years)	20.164	7.885	374	258	1.136	0.391	4.394	35.935
Post-neonatal mortality (last 5 years)	13.800	6.992	375	259	1.181	0.507	0.000	27.784
Infant mortality (last 5 years)	33.964	11.639	375	259	1.305	0.343	10.685	57.243
Child mortality (last 5 years)	14.277	8.357	375	259	1.213	0.585	0.000	30.991
Under-five mortality (last 5 years)	47.756	15.686	376	260	1.452	0.328	16.383	79.128

NA = Not applicable

Table C.9 Sampling errors: East Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.604	0.013	2246	1305	1.248	0.021	0.578	0.630
No education	0.518	0.020	2246	1305	1.895	0.039	0.478	0.558
With secondary education or higher	0.142	0.013	2246	1305	1.817	0.094	0.116	0.169
Currently married (in union)	0.961	0.004	2246	1305	0.966	0.004	0.953	0.969
Currently pregnant	0.069	0.005	3505	2064	0.959	0.072	0.059	0.079
Children ever born	2.374	0.145	3505	2064	1.064	0.061	2.084	2.664
Children surviving	2.135	0.134	3505	2064	1.096	0.063	1.868	2.402
Children ever born to women 40-49	6.071	0.215	505	287	1.437	0.035	5.640	6.501
Knowing any contraceptive method	0.997	0.001	2156	1253	1.037	0.001	0.994	0.999
Knowing any modern contraceptive method	0.993	0.002	2156	1253	1.124	0.002	0.989	0.997
Ever used any contraceptive method	0.785	0.016	2156	1253	1.848	0.021	0.752	0.818
Currently using any contraceptive method	0.579	0.016	2156	1253	1.529	0.028	0.546	0.611
Currently using a modern method	0.314	0.013	2156	1253	1.252	0.040	0.288	0.339
Currently using pill	0.049	0.005	2156	1253	1.154	0.110	0.038	0.059
Currently using IUD	0.143	0.008	2156	1253	1.081	0.057	0.127	0.159
Currently using condom	0.074	0.006	2156	1253	1.151	0.088	0.061	0.087
Currently using injectables	0.010	0.002	2156	1253	1.049	0.230	0.005	0.014
Currently using female sterilization	0.037	0.004	2156	1253	1.031	0.114	0.028	0.045
Currently using periodic abstinence	0.005	0.002	2156	1253	1.157	0.342	0.002	0.009
Currently using withdrawal	0.240	0.014	2156	1253	1.510	0.058	0.212	0.267
Obtained method from public sector source	0.621	0.020	697	394	1.111	0.033	0.580	0.661
Want no more children	0.585	0.015	1089	635	1.035	0.026	0.554	0.616
Want to delay birth at least 2 years	0.171	0.011	1089	635	0.991	0.066	0.149	0.194
Ideal number of children	3.115	0.062	1097	639	1.408	0.020	2.990	3.240
Mothers received medical care at delivery	0.597	0.026	1977	1168	1.859	0.043	0.546	0.649
Child having health card, seen	0.308	0.033	355	210	1.352	0.107	0.242	0.374
Child received BCG vaccination	0.686	0.035	355	210	1.428	0.052	0.615	0.756
Child received DPT vaccination (3 doses)	0.444	0.036	355	210	1.380	0.082	0.371	0.516
Child received polio vaccination (3 doses)	0.522	0.034	355	210	1.272	0.065	0.454	0.589
Child received measles vaccination	0.582	0.038	355	210	1.456	0.066	0.505	0.659
Child fully immunized	0.348	0.034	355	210	1.346	0.098	0.280	0.416
Height-for-age (-2SD)	0.225	0.015	1756	1038	1.392	0.066	0.195	0.254
Weight-for-height (-2SD)	0.008	0.002	1756	1038	0.989	0.262	0.004	0.012
Weight-for-age (-2SD)	0.077	0.010	1756	1038	1.432	0.126	0.057	0.096
BMI < 18.5	0.017	0.005	1049	615	1.394	0.331	0.006	0.027
Has heard of HIV/AIDS	0.691	0.020	1121	653	1.451	0.029	0.651	0.731
Knows about condoms	0.116	0.010	1121	653	1.028	0.085	0.097	0.136
Knows about limiting partners	0.131	0.011	1121	653	1.088	0.084	0.109	0.153
Total fertility rate (last 3 years)	3.654	0.162	NA	5968	1.383	0.044	3.331	3.978
Neonatal mortality (last 5 years)	23.229	3.679	1978	1170	0.986	0.158	15.870	30.588
Post-neonatal mortality (last 5 years)	18.202	3.247	1978	1170	1.095	0.178	11.709	24.696
Infant mortality (last 5 years)	41.431	5.175	1978	1170	1.103	0.125	31.081	51.781
Child mortality (last 5 years)	7.467	2.118	1982	1172	1.171	0.284	3.231	11.703
Under-five mortality (last 5 years)	48.589	5.629	1982	1172	1.161	0.116	37.331	59.846

NA = Not applicable

Table C.10 Sampling errors: İstanbul, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.978	0.003	1163	1470	0.770	0.003	0.971	0.984
No education	0.142	0.015	1163	1470	1.436	0.104	0.112	0.171
With secondary education or higher	0.305	0.019	1163	1470	1.375	0.061	0.268	0.342
Currently married (in union)	0.956	0.007	1163	1470	1.180	0.007	0.941	0.970
Currently pregnant	0.029	0.004	1753	2014	0.986	0.151	0.020	0.038
Children ever born	1.614	0.061	1753	2014	0.577	0.038	1.492	1.736
Children surviving	1.486	0.056	1753	2014	0.583	0.038	1.374	1.599
Children ever born to women 40-49	3.094	0.119	325	424	1.167	0.038	2.857	3.331
Knowing any contraceptive method	0.999	0.001	1114	1405	0.921	0.001	0.998	1.000
Knowing any modern contraceptive method	0.999	0.001	1114	1405	0.921	0.001	0.998	1.000
Ever used any contraceptive method	0.931	0.008	1114	1405	1.024	0.008	0.915	0.946
Currently using any contraceptive method	0.761	0.013	1114	1405	0.997	0.017	0.735	0.786
Currently using a modern method	0.459	0.016	1114	1405	1.102	0.036	0.426	0.492
Currently using pill	0.055	0.008	1114	1405	1.167	0.146	0.039	0.071
Currently using IUD	0.216	0.012	1114	1405	0.969	0.055	0.193	0.240
Currently using condom	0.119	0.011	1114	1405	1.097	0.090	0.098	0.140
Currently using injectables	0.002	0.001	1114	1405	0.927	0.579	0.000	0.005
Currently using female sterilization	0.060	0.007	1114	1405	1.027	0.122	0.045	0.075
Currently using periodic abstinence	0.015	0.004	1114	1405	1.012	0.249	0.007	0.022
Currently using withdrawal	0.278	0.015	1114	1405	1.137	0.055	0.247	0.308
Obtained method from public sector source	0.408	0.024	509	651	1.097	0.059	0.360	0.456
Want no more children	0.626	0.020	542	682	0.978	0.033	0.585	0.666
Want to delay birth at least 2 years	0.140	0.015	542	682	1.039	0.111	0.109	0.171
Ideal number of children	2.339	0.043	563	711	1.186	0.018	2.253	2.426
Mothers received medical care at delivery	0.953	0.013	519	643	1.096	0.013	0.927	0.978
Child having health card, seen	0.704	0.047	98	127	1.026	0.067	0.609	0.798
Child received BCG vaccination	0.923	0.030	98	127	1.106	0.032	0.864	0.982
Child received DPT vaccination (3 doses)	0.725	0.048	98	127	1.059	0.066	0.630	0.820
Child received polio vaccination (3 doses)	0.782	0.042	98	127	1.013	0.054	0.698	0.866
Child received measles vaccination	0.858	0.036	98	127	1.022	0.042	0.786	0.929
Child fully immunized	0.623	0.053	98	127	1.086	0.085	0.517	0.729
Height-for-age (-2SD)	0.061	0.012	461	572	0.957	0.195	0.037	0.084
Weight-for-height (-2SD)	0.007	0.004	461	572	1.025	0.587	0.000	0.014
Weight-for-age (-2SD)	0.013	0.005	461	572	0.998	0.406	0.002	0.024
BMI < 18.5	0.014	0.006	395	491	0.993	0.428	0.002	0.025
Has heard of HIV/AIDS	0.962	0.008	568	715	0.960	0.008	0.947	0.978
Knows about condoms	0.321	0.024	568	715	1.248	0.076	0.272	0.370
Knows about limiting partners	0.318	0.019	568	715	0.955	0.059	0.280	0.355
Total fertility rate (last 3 years)	1.831	0.093	NA	5793	0.978	0.051	1.645	2.017
Neonatal mortality (last 5 years)	15.568	5.630	522	645	1.038	0.362	4.308	26.828
Post-neonatal mortality (last 5 years)	3.720	2.656	522	645	1.079	0.714	0.000	9.033
Infant mortality (last 5 years)	19.288	6.193	522	645	1.047	0.321	6.902	31.675
Child mortality (last 5 years)	13.023	4.831	525	648	0.973	0.371	3.361	22.685
Under-five mortality (last 5 years)	32.060	7.455	525	648	0.969	0.233	17.150	46.970

NA = Not applicable

Table C.11 Sampling errors: West Marmara Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.620	0.028	384	348	1.112	0.044	0.565	0.675
No education	0.103	0.029	384	348	1.863	0.281	0.045	0.161
With secondary education or higher	0.257	0.030	384	348	1.323	0.115	0.198	0.316
Currently married (in union)	0.945	0.012	384	348	1.064	0.013	0.920	0.969
Currently pregnant	0.028	0.009	520	465	1.225	0.330	0.009	0.046
Children ever born	1.505	0.092	520	465	0.651	0.061	1.321	1.688
Children surviving	1.419	0.091	520	465	0.687	0.064	1.237	1.600
Children ever born to women 40-49	2.512	0.136	127	120	1.191	0.054	2.240	2.783
Knowing any contraceptive method	0.998	0.002	363	329	0.945	0.002	0.993	1.000
Knowing any modern contraceptive method	0.991	0.007	363	329	1.457	0.007	0.976	1.000
Ever used any contraceptive method	0.944	0.014	363	329	1.116	0.014	0.917	0.971
Currently using any contraceptive method	0.779	0.027	363	329	1.218	0.034	0.726	0.832
Currently using a modern method	0.436	0.030	363	329	1.152	0.069	0.376	0.496
Currently using pill	0.032	0.009	363	329	0.974	0.280	0.014	0.051
Currently using IUD	0.197	0.020	363	329	0.947	0.100	0.157	0.236
Currently using condom	0.139	0.015	363	329	0.798	0.104	0.110	0.168
Currently using injectables	0.002	0.002	363	329	0.940	0.999	0.000	0.007
Currently using female sterilization	0.059	0.013	363	329	1.079	0.227	0.032	0.085
Currently using periodic abstinence	0.017	0.006	363	329	0.916	0.369	0.004	0.029
Currently using withdrawal	0.310	0.021	363	329	0.858	0.067	0.268	0.351
Obtained method from public sector source	0.559	0.058	161	143	1.465	0.103	0.444	0.674
Want no more children	0.671	0.048	193	173	1.416	0.072	0.575	0.767
Want to delay birth at least 2 years	0.127	0.031	193	173	1.271	0.240	0.066	0.189
Ideal number of children	2.147	0.042	199	178	1.021	0.019	2.064	2.230
Mothers received medical care at delivery	0.978	0.013	139	124	1.059	0.014	0.951	1.000
Child having health card, seen	0.659	0.106	28	24	1.129	0.160	0.447	0.870
Child received BCG vaccination	1.000	0.000	28	24	NA	0.000	1.000	1.000
Child received DPT vaccination (3 doses)	0.839	0.099	28	24	1.378	0.118	0.641	1.000
Child received polio vaccination (3 doses)	0.919	0.049	28	24	0.934	0.054	0.820	1.000
Child received measles vaccination	0.934	0.066	28	24	1.364	0.071	0.802	1.000
Child fully immunized	0.839	0.099	28	24	1.378	0.118	0.641	1.000
Height-for-age (-2SD)	0.073	0.018	127	113	0.824	0.253	0.036	0.110
Weight-for-height (-2SD)	0.007	0.007	127	113	0.893	0.948	0.000	0.020
Weight-for-age (-2SD)	0.063	0.023	127	113	1.084	0.371	0.016	0.109
BMI < 18.5	0.032	0.019	114	101	1.133	0.593	0.000	0.070
Has heard of HIV/AIDS	0.920	0.027	199	178	1.417	0.030	0.866	0.975
Knows about condoms	0.241	0.030	199	178	0.997	0.126	0.181	0.302
Knows about limiting partners	0.197	0.036	199	178	1.260	0.181	0.126	0.269

NA = Not applicable



Table C.12 Sampling errors: Aegean Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.617	0.022	549	1157	1.036	0.035	0.574	0.660
No education	0.161	0.021	549	1157	1.350	0.132	0.119	0.203
With secondary education or higher	0.256	0.037	549	1157	1.959	0.143	0.183	0.329
Currently married (in union)	0.933	0.009	549	1157	0.883	0.010	0.914	0.952
Currently pregnant	0.035	0.010	712	1502	1.515	0.301	0.014	0.056
Children ever born	1.667	0.111	712	1502	1.268	0.066	1.446	1.889
Children surviving	1.542	0.099	712	1502	1.264	0.064	1.343	1.740
Children ever born to women 40-49	2.756	0.150	204	425	1.523	0.054	2.456	3.056
Knowing any contraceptive method	0.995	0.000	513	1079	0.074	0.000	0.994	0.995
Knowing any modern contraceptive method	0.986	0.002	513	1079	0.436	0.002	0.981	0.990
Ever used any contraceptive method	0.906	0.011	513	1079	0.845	0.012	0.885	0.928
Currently using any contraceptive method	0.702	0.018	513	1079	0.871	0.025	0.667	0.738
Currently using a modern method	0.450	0.014	513	1079	0.638	0.031	0.422	0.478
Currently using pill	0.051	0.008	513	1079	0.797	0.151	0.036	0.067
Currently using IUD	0.205	0.015	513	1079	0.861	0.075	0.174	0.235
Currently using condom	0.129	0.015	513	1079	1.033	0.119	0.098	0.160
Currently using injectables	0.000	0.000	513	1079	NA	NA	0.000	0.000
Currently using female sterilization	0.056	0.011	513	1079	1.066	0.194	0.034	0.077
Currently using periodic abstinence	0.007	0.004	513	1079	1.005	0.524	0.000	0.015
Currently using withdrawal	0.240	0.023	513	1079	1.224	0.096	0.194	0.286
Obtained method from public sector source	0.593	0.048	233	489	1.495	0.081	0.497	0.690
Want no more children	0.667	0.040	259	539	1.365	0.060	0.587	0.747
Want to delay birth at least 2 years	0.099	0.016	259	539	0.887	0.167	0.066	0.132
Ideal number of children	2.232	0.035	283	587	0.870	0.016	2.161	2.302
Mothers received medical care at delivery	0.946	0.032	181	392	1.413	0.034	0.881	1.000
Child having health card, seen	0.538	0.122	31	80	1.505	0.227	0.293	0.782
Child received BCG vaccination	0.971	0.028	31	80	1.017	0.029	0.916	1.000
Child received DPT vaccination (3 doses)	0.671	0.109	31	80	1.427	0.163	0.452	0.889
Child received polio vaccination (3 doses)	0.671	0.074	31	80	0.962	0.110	0.524	0.818
Child received measles vaccination	0.898	0.044	31	80	0.888	0.049	0.810	0.985
Child fully immunized	0.495	0.106	31	80	1.297	0.213	0.284	0.706
Height-for-age (-2SD)	0.066	0.017	160	346	0.863	0.251	0.033	0.099
Weight-for-height (-2SD)	0.008	0.008	160	346	1.192	1.027	0.000	0.024
Weight-for-age (-2SD)	0.012	0.009	160	346	1.051	0.734	0.000	0.031
BMI < 18.5	0.008	0.008	138	294	1.029	0.981	0.000	0.023
Has heard of HIV/AIDS	0.857	0.038	284	588	1.808	0.044	0.782	0.932
Knows about condoms	0.219	0.023	284	588	0.923	0.104	0.174	0.265
Knows about limiting partners	0.186	0.029	284	588	1.265	0.158	0.127	0.244

NA = Not applicable

Table C.13 Sampling errors: East Marmara Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.747	0.026	556	710	1.436	0.035	0.694	0.800
No education	0.136	0.030	556	710	2.094	0.224	0.075	0.197
With secondary education or higher	0.295	0.018	556	710	0.923	0.061	0.259	0.331
Currently married (in union)	0.942	0.010	556	710	0.985	0.010	0.922	0.961
Currently pregnant	0.041	0.008	711	986	1.015	0.184	0.026	0.056
Children ever born	1.720	0.208	711	986	1.597	0.121	1.305	2.136
Children surviving	1.603	0.174	711	986	1.449	0.109	1.254	1.951
Children ever born to women 40-49	3.253	0.112	183	231	0.998	0.034	3.030	3.476
Knowing any contraceptive method	1.000	0.000	524	669	NA	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	524	669	NA	0.000	1.000	1.000
Ever used any contraceptive method	0.928	0.013	524	669	1.158	0.014	0.902	0.954
Currently using any contraceptive method	0.720	0.019	524	669	0.990	0.027	0.681	0.759
Currently using a modern method	0.454	0.023	524	669	1.041	0.050	0.409	0.500
Currently using pill	0.057	0.008	524	669	0.833	0.149	0.040	0.073
Currently using IUD	0.214	0.015	524	669	0.853	0.071	0.184	0.245
Currently using condom	0.110	0.015	524	669	1.079	0.134	0.080	0.139
Currently using injectables	0.003	0.002	524	669	0.876	0.722	0.000	0.007
Currently using female sterilization	0.060	0.009	524	669	0.902	0.156	0.041	0.079
Currently using periodic abstinence	0.004	0.002	524	669	0.794	0.526	0.000	0.009
Currently using withdrawal	0.252	0.023	524	669	1.217	0.092	0.206	0.298
Obtained method from public sector source	0.625	0.038	241	304	1.223	0.061	0.549	0.702
Want no more children	0.631	0.035	278	353	1.216	0.056	0.560	0.701
Want to delay birth at least 2 years	0.148	0.027	278	353	1.266	0.183	0.094	0.202
Ideal number of children	2.377	0.073	288	369	1.202	0.031	2.230	2.523
Mothers received medical care at delivery	0.944	0.031	227	328	2.000	0.033	0.883	1.000
Child having health card, seen	0.579	0.128	46	63	1.822	0.220	0.324	0.835
Child received BCG vaccination	0.987	0.012	46	63	0.788	0.013	0.963	1.000
Child received DPT vaccination (3 doses)	0.697	0.049	46	63	0.754	0.070	0.599	0.796
Child received polio vaccination (3 doses)	0.851	0.046	46	63	0.904	0.054	0.760	0.943
Child received measles vaccination	0.910	0.061	46	63	1.494	0.067	0.788	1.000
Child fully immunized	0.671	0.050	46	63	0.751	0.075	0.571	0.771
Height-for-age (-2SD)	0.034	0.014	197	284	1.061	0.408	0.006	0.062
Weight-for-height (-2SD)	0.016	0.012	197	284	1.437	0.740	0.000	0.041
Weight-for-age (-2SD)	0.030	0.014	197	284	1.254	0.473	0.002	0.059
BMI < 18.5	0.029	0.015	170	231	1.184	0.510	0.000	0.059
Has heard of HIV/AIDS	0.923	0.018	292	373	1.177	0.020	0.886	0.960
Knows about condoms	0.274	0.021	292	373	0.806	0.077	0.232	0.316
Knows about limiting partners	0.234	0.039	292	373	1.571	0.167	0.156	0.312

NA = Not applicable

Table C.14 Sampling errors: West Anatolia Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.846	0.014	466	784	0.806	0.016	0.819	0.873
No education	0.120	0.027	466	784	1.815	0.228	0.065	0.174
With secondary education or higher	0.312	0.035	466	784	1.642	0.113	0.242	0.383
Currently married (in union)	0.947	0.011	466	784	1.042	0.011	0.925	0.969
Currently pregnant	0.032	0.007	704	1141	1.069	0.227	0.018	0.047
Children ever born	1.651	0.146	704	1141	0.986	0.088	1.359	1.942
Children surviving	1.549	0.135	704	1141	0.980	0.087	1.280	1.819
Children ever born to women 40-49	3.101	0.107	146	242	0.786	0.035	2.887	3.316
Knowing any contraceptive method	1.000	0.000	442	742	NA	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	442	742	NA	0.000	1.000	1.000
Ever used any contraceptive method	0.947	0.012	442	742	1.123	0.013	0.923	0.971
Currently using any contraceptive method	0.793	0.018	442	742	0.938	0.023	0.757	0.830
Currently using a modern method	0.514	0.026	442	742	1.097	0.051	0.462	0.566
Currently using pill	0.048	0.010	442	742	0.991	0.210	0.028	0.068
Currently using IUD	0.276	0.027	442	742	1.284	0.099	0.222	0.331
Currently using condom	0.125	0.022	442	742	1.383	0.174	0.082	0.169
Currently using injectables	0.007	0.004	442	742	1.011	0.575	0.000	0.015
Currently using female sterilization	0.049	0.009	442	742	0.877	0.183	0.031	0.067
Currently using periodic abstinence	0.018	0.006	442	742	0.874	0.304	0.007	0.030
Currently using withdrawal	0.257	0.027	442	742	1.303	0.106	0.202	0.311
Obtained method from public sector source	0.616	0.052	219	381	1.563	0.084	0.513	0.719
Want no more children	0.685	0.023	234	386	0.751	0.033	0.639	0.731
Want to delay birth at least 2 years	0.131	0.031	234	386	1.422	0.240	0.068	0.194
Ideal number of children	2.278	0.056	247	408	1.011	0.025	2.166	2.389
Mothers received medical care at delivery	0.930	0.031	207	349	1.600	0.034	0.867	0.993
Child having health card, seen	0.662	0.116	33	57	1.404	0.176	0.429	0.894
Child received BCG vaccination	0.970	0.030	33	57	1.006	0.031	0.910	1.000
Child received DPT vaccination (3 doses)	0.819	0.094	33	57	1.409	0.115	0.630	1.000
Child received polio vaccination (3 doses)	0.808	0.076	33	57	1.112	0.094	0.656	0.960
Child received measles vaccination	0.939	0.060	33	57	1.039	0.063	0.820	1.000
Child fully immunized	0.636	0.107	33	57	1.221	0.167	0.423	0.850
Height-for-age (-2SD)	0.098	0.020	184	311	0.852	0.200	0.059	0.137
Weight-for-height (-2SD)	0.004	0.004	184	311	0.840	1.017	0.000	0.011
Weight-for-age (-2SD)	0.027	0.008	184	311	0.689	0.302	0.011	0.043
BMI < 18.5	0.042	0.012	157	268	0.758	0.286	0.018	0.067
Has heard of HIV/AIDS	0.942	0.016	250	413	1.092	0.017	0.910	0.974
Knows about condoms	0.221	0.027	250	413	1.037	0.124	0.166	0.275
Knows about limiting partners	0.266	0.032	250	413	1.141	0.120	0.202	0.330

NA = Not applicable

Table C.15 Sampling errors: Mediterranean Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.698	0.014	1113	1028	1.047	0.021	0.669	0.727
No education	0.236	0.025	1113	1028	1.964	0.106	0.186	0.286
With secondary education or higher	0.233	0.021	1113	1028	1.695	0.092	0.190	0.276
Currently married (in union)	0.955	0.006	1113	1028	0.986	0.006	0.943	0.967
Currently pregnant	0.041	0.005	1639	1520	0.907	0.118	0.032	0.051
Children ever born	1.820	0.127	1639	1520	1.062	0.070	1.565	2.075
Children surviving	1.697	0.121	1639	1520	1.089	0.071	1.455	1.938
Children ever born to women 40-49	3.719	0.162	319	293	1.253	0.044	3.394	4.043
Knowing any contraceptive method	0.997	0.002	1061	981	0.983	0.002	0.993	1.000
Knowing any modern contraceptive method	0.995	0.002	1061	981	0.978	0.002	0.991	0.999
Ever used any contraceptive method	0.909	0.010	1061	981	1.125	0.011	0.889	0.929
Currently using any contraceptive method	0.708	0.015	1061	981	1.073	0.021	0.678	0.738
Currently using a modern method	0.448	0.017	1061	981	1.141	0.039	0.413	0.483
Currently using pill	0.039	0.005	1061	981	0.926	0.142	0.028	0.050
Currently using IUD	0.219	0.014	1061	981	1.116	0.065	0.191	0.247
Currently using condom	0.113	0.011	1061	981	1.102	0.095	0.091	0.134
Currently using injectables	0.005	0.003	1061	981	1.250	0.526	0.000	0.011
Currently using female sterilization	0.061	0.007	1061	981	0.928	0.112	0.047	0.075
Currently using periodic abstinence	0.014	0.003	1061	981	0.959	0.245	0.007	0.021
Currently using withdrawal	0.236	0.015	1061	981	1.167	0.065	0.205	0.266
Obtained method from public sector source	0.652	0.024	490	442	1.112	0.037	0.604	0.700
Want no more children	0.618	0.019	535	492	0.891	0.030	0.581	0.655
Want to delay birth at least 2 years	0.133	0.013	535	492	0.853	0.094	0.108	0.158
Ideal number of children	2.775	0.067	550	505	1.174	0.024	2.642	2.908
Mothers received medical care at delivery	0.887	0.027	594	557	1.699	0.031	0.832	0.942
Child having health card, seen	0.624	0.059	96	89	1.172	0.095	0.506	0.742
Child received BCG vaccination	0.952	0.017	96	89	0.794	0.018	0.917	0.986
Child received DPT vaccination (3 doses)	0.714	0.053	96	89	1.107	0.074	0.609	0.819
Child received polio vaccination (3 doses)	0.706	0.055	96	89	1.149	0.078	0.596	0.816
Child received measles vaccination	0.811	0.064	96	89	1.593	0.079	0.683	0.938
Child fully immunized	0.602	0.064	96	89	1.258	0.106	0.474	0.730
Height-for-age (-2SD)	0.104	0.016	533	499	1.105	0.149	0.073	0.135
Weight-for-height (-2SD)	0.004	0.003	533	499	1.066	0.702	0.000	0.010
Weight-for-age (-2SD)	0.028	0.007	533	499	1.066	0.270	0.013	0.043
BMI < 18.5	0.018	0.006	406	379	0.942	0.343	0.006	0.031
Has heard of HIV/AIDS	0.887	0.019	559	513	1.384	0.021	0.850	0.924
Knows about condoms	0.231	0.020	559	513	1.143	0.088	0.191	0.272
Knows about limiting partners	0.216	0.017	559	513	0.993	0.080	0.181	0.251

NA = Not applicable

Table C.16 Sampling errors: Central Anatolia Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.599	0.019	502	471	0.846	0.031	0.562	0.636
No education	0.180	0.026	502	471	1.517	0.145	0.128	0.232
With secondary education or higher	0.185	0.027	502	471	1.536	0.144	0.131	0.238
Currently married (in union)	0.947	0.011	502	471	1.121	0.012	0.925	0.970
Currently pregnant	0.046	0.009	717	671	1.091	0.200	0.027	0.064
Children ever born	1.940	0.155	717	671	0.827	0.080	1.631	2.249
Children surviving	1.774	0.140	717	671	0.823	0.079	1.495	2.054
Children ever born to women 40-49	3.978	0.167	165	155	1.080	0.042	3.644	4.313
Knowing any contraceptive method	0.996	0.003	474	446	0.927	0.003	0.991	1.000
Knowing any modern contraceptive method	0.994	0.003	474	446	0.944	0.003	0.988	1.000
Ever used any contraceptive method	0.906	0.013	474	446	0.992	0.015	0.879	0.933
Currently using any contraceptive method	0.721	0.023	474	446	1.109	0.032	0.676	0.767
Currently using a modern method	0.463	0.020	474	446	0.884	0.044	0.422	0.504
Currently using pill	0.048	0.011	474	446	1.141	0.233	0.026	0.071
Currently using IUD	0.262	0.022	474	446	1.092	0.084	0.218	0.306
Currently using condom	0.092	0.011	474	446	0.859	0.124	0.069	0.115
Currently using injectables	0.000	0.000	474	446	NA	NA	0.000	0.000
Currently using female sterilization	0.058	0.010	474	446	0.882	0.163	0.039	0.077
Currently using periodic abstinence	0.013	0.003	474	446	0.535	0.217	0.007	0.018
Currently using withdrawal	0.240	0.015	474	446	0.747	0.061	0.211	0.270
Obtained method from public sector source	0.716	0.033	224	206	1.090	0.046	0.650	0.782
Want no more children	0.633	0.029	236	225	0.921	0.046	0.575	0.691
Want to delay birth at least 2 years	0.161	0.024	236	225	1.018	0.152	0.112	0.210
Ideal number of children	2.524	0.084	249	238	1.289	0.033	2.356	2.692
Mothers received medical care at delivery	0.860	0.050	243	232	1.746	0.058	0.760	0.960
Child having health card, seen	0.582	0.095	43	42	1.259	0.163	0.393	0.772
Child received BCG vaccination	0.914	0.045	43	42	1.070	0.049	0.824	1.000
Child received DPT vaccination (3 doses)	0.699	0.087	43	42	1.246	0.124	0.526	0.872
Child received polio vaccination (3 doses)	0.727	0.074	43	42	1.097	0.102	0.579	0.875
Child received measles vaccination	0.886	0.051	43	42	1.061	0.057	0.784	0.988
Child fully immunized	0.642	0.077	43	42	1.055	0.120	0.488	0.796
Height-for-age (-2SD)	0.096	0.017	214	204	0.811	0.176	0.062	0.129
Weight-for-height (-2SD)	0.004	0.004	214	204	0.921	0.983	0.000	0.012
Weight-for-age (-2SD)	0.024	0.009	214	204	0.897	0.390	0.005	0.042
BMI < 18.5	0.010	0.007	173	164	0.944	0.710	0.000	0.024
Has heard of HIV/AIDS	0.951	0.014	250	239	1.002	0.014	0.923	0.978
Knows about condoms	0.168	0.026	250	239	1.112	0.157	0.115	0.221
Knows about limiting partners	0.176	0.020	250	239	0.808	0.111	0.137	0.216

NA = Not applicable

Table C.17 Sampling errors: West Black Sea Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.510	0.023	615	513	1.136	0.045	0.464	0.556
No education	0.124	0.022	615	513	1.619	0.174	0.081	0.167
With secondary education or higher	0.201	0.025	615	513	1.549	0.125	0.151	0.251
Currently married (in union)	0.960	0.006	615	513	0.703	0.006	0.949	0.971
Currently pregnant	0.026	0.005	882	745	1.038	0.212	0.015	0.037
Children ever born	1.837	0.139	882	745	0.886	0.076	1.558	2.115
Children surviving	1.660	0.123	882	745	0.870	0.074	1.415	1.905
Children ever born to women 40-49	3.375	0.173	235	194	1.376	0.051	3.029	3.722
Knowing any contraceptive method	1.000	0.000	585	492	NA	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	585	492	NA	0.000	1.000	1.000
Ever used any contraceptive method	0.922	0.011	585	492	0.960	0.012	0.900	0.943
Currently using any contraceptive method	0.718	0.016	585	492	0.854	0.022	0.686	0.750
Currently using a modern method	0.381	0.020	585	492	0.984	0.052	0.341	0.420
Currently using pill	0.037	0.009	585	492	1.167	0.245	0.019	0.056
Currently using IUD	0.157	0.023	585	492	1.541	0.148	0.110	0.203
Currently using condom	0.080	0.014	585	492	1.206	0.170	0.053	0.107
Currently using injectables	0.002	0.002	585	492	1.003	0.998	0.000	0.005
Currently using female sterilization	0.097	0.014	585	492	1.106	0.140	0.070	0.124
Currently using periodic abstinence	0.006	0.003	585	492	0.996	0.531	0.000	0.012
Currently using withdrawal	0.324	0.017	585	492	0.881	0.053	0.290	0.359
Obtained method from public sector source	0.584	0.052	225	188	1.590	0.090	0.479	0.688
Want no more children	0.661	0.027	288	243	0.964	0.041	0.607	0.715
Want to delay birth at least 2 years	0.102	0.014	288	243	0.805	0.141	0.073	0.131
Ideal number of children	2.343	0.042	303	254	0.927	0.018	2.259	2.427
Mothers received medical care at delivery	0.933	0.027	235	202	1.493	0.029	0.879	0.988
Child having health card, seen	0.653	0.055	45	40	0.781	0.084	0.544	0.762
Child received BCG vaccination	1.000	0.000	45	40	NA	0.000	1.000	1.000
Child received DPT vaccination (3 doses)	0.697	0.068	45	40	1.006	0.097	0.561	0.833
Child received polio vaccination (3 doses)	0.711	0.060	45	40	0.896	0.084	0.592	0.830
Child received measles vaccination	0.905	0.053	45	40	1.253	0.059	0.799	1.000
Child fully immunized	0.646	0.075	45	40	1.072	0.117	0.496	0.797
Height-for-age (-2SD)	0.091	0.028	211	182	1.348	0.310	0.035	0.148
Weight-for-height (-2SD)	0.006	0.004	211	182	0.800	0.698	0.000	0.014
Weight-for-age (-2SD)	0.030	0.015	211	182	1.315	0.507	0.000	0.060
BMI < 18.5	0.010	0.007	176	152	0.988	0.722	0.000	0.025
Has heard of HIV/AIDS	0.923	0.019	304	254	1.263	0.021	0.884	0.961
Knows about condoms	0.161	0.025	304	254	1.163	0.153	0.112	0.210
Knows about limiting partners	0.189	0.029	304	254	1.291	0.154	0.131	0.247

NA = Not applicable

Table C.18 Sampling errors: East Black Sea Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.493	0.027	481	291	1.172	0.054	0.440	0.547
No education	0.255	0.057	481	291	2.877	0.225	0.140	0.369
With secondary education or higher	0.251	0.035	481	291	1.773	0.140	0.181	0.322
Currently married (in union)	0.947	0.012	481	291	1.171	0.013	0.923	0.971
Currently pregnant	0.036	0.008	674	425	1.079	0.221	0.020	0.052
Children ever born	1.884	0.118	674	425	0.775	0.062	1.649	2.120
Children surviving	1.755	0.122	674	425	0.869	0.070	1.510	1.999
Children ever born to women 40-49	3.650	0.165	167	91	1.361	0.045	3.319	3.981
Knowing any contraceptive method	0.996	0.004	454	275	1.422	0.004	0.987	1.000
Knowing any modern contraceptive method	0.996	0.004	454	275	1.422	0.004	0.987	1.000
Ever used any contraceptive method	0.921	0.018	454	275	1.446	0.020	0.885	0.958
Currently using any contraceptive method	0.707	0.020	454	275	0.944	0.029	0.666	0.747
Currently using a modern method	0.262	0.022	454	275	1.074	0.085	0.217	0.306
Currently using pill	0.022	0.006	454	275	0.939	0.296	0.009	0.035
Currently using IUD	0.092	0.015	454	275	1.087	0.161	0.062	0.121
Currently using condom	0.085	0.014	454	275	1.049	0.162	0.058	0.113
Currently using injectables	0.000	0.000	454	275	NA	NA	0.000	0.000
Currently using female sterilization	0.057	0.012	454	275	1.129	0.215	0.033	0.082
Currently using periodic abstinence	0.023	0.008	454	275	1.078	0.329	0.008	0.038
Currently using withdrawal	0.419	0.016	454	275	0.700	0.039	0.387	0.452
Obtained method from public sector source	0.510	0.046	129	72	1.043	0.090	0.418	0.602
Want no more children	0.632	0.041	240	144	1.329	0.066	0.550	0.715
Want to delay birth at least 2 years	0.116	0.021	240	144	0.996	0.178	0.075	0.157
Ideal number of children	2.585	0.099	250	149	1.410	0.038	2.387	2.784
Mothers received medical care at delivery	0.807	0.113	211	137	3.313	0.141	0.580	1.000
Child having health card, seen	0.548	0.141	32	18	1.533	0.258	0.265	0.831
Child received BCG vaccination	0.808	0.094	32	18	1.310	0.117	0.620	0.997
Child received DPT vaccination (3 doses)	0.678	0.140	32	18	1.628	0.206	0.398	0.958
Child received polio vaccination (3 doses)	0.656	0.135	32	18	1.543	0.206	0.386	0.926
Child received measles vaccination	0.764	0.091	32	18	1.173	0.119	0.581	0.947
Child fully immunized	0.548	0.139	32	18	1.503	0.253	0.271	0.825
Height-for-age (-2SD)	0.169	0.050	185	118	1.703	0.297	0.069	0.269
Weight-for-height (-2SD)	0.003	0.003	185	118	0.824	1.008	0.000	0.010
Weight-for-age (-2SD)	0.023	0.015	185	118	1.349	0.628	0.000	0.052
BMI < 18.5	0.009	0.009	144	89	1.140	0.982	0.000	0.027
Has heard of HIV/AIDS	0.902	0.057	251	151	3.007	0.063	0.789	1.000
Knows about condoms	0.155	0.033	251	151	1.438	0.212	0.090	0.221
Knows about limiting partners	0.135	0.022	251	151	1.038	0.166	0.090	0.179

NA = Not applicable

Table C.19 Sampling errors: Northeast Anatolia Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.508	0.035	535	245	1.630	0.069	0.437	0.578
No education	0.421	0.041	535	245	1.932	0.098	0.339	0.504
With secondary education or higher	0.186	0.026	535	245	1.537	0.139	0.134	0.238
Currently married (in union)	0.955	0.006	535	245	0.695	0.007	0.942	0.967
Currently pregnant	0.059	0.009	802	382	1.000	0.160	0.040	0.078
Children ever born	2.262	0.267	802	382	1.095	0.118	1.727	2.796
Children surviving	2.002	0.236	802	382	1.094	0.118	1.530	2.474
Children ever born to women 40-49	5.513	0.456	141	61	1.632	0.083	4.600	6.426
Knowing any contraceptive method	0.999	0.001	511	234	0.849	0.001	0.996	1.000
Knowing any modern contraceptive method	0.995	0.004	511	234	1.218	0.004	0.988	1.000
Ever used any contraceptive method	0.861	0.022	511	234	1.453	0.026	0.816	0.905
Currently using any contraceptive method	0.645	0.025	511	234	1.201	0.039	0.594	0.696
Currently using a modern method	0.341	0.029	511	234	1.373	0.085	0.283	0.398
Currently using pill	0.047	0.010	511	234	1.067	0.213	0.027	0.067
Currently using IUD	0.171	0.016	511	234	0.978	0.095	0.139	0.204
Currently using condom	0.070	0.010	511	234	0.930	0.151	0.049	0.091
Currently using injectables	0.017	0.009	511	234	1.512	0.507	0.000	0.035
Currently using female sterilization	0.033	0.007	511	234	0.898	0.215	0.019	0.047
Currently using periodic abstinence	0.008	0.004	511	234	0.989	0.479	0.000	0.016
Currently using withdrawal	0.261	0.033	511	234	1.701	0.127	0.195	0.327
Obtained method from public sector source	0.634	0.039	186	80	1.110	0.062	0.555	0.713
Want no more children	0.604	0.036	246	115	1.151	0.060	0.532	0.676
Want to delay birth at least 2 years	0.158	0.028	246	115	1.205	0.178	0.102	0.214
Ideal number of children	2.855	0.093	255	119	1.229	0.032	2.669	3.040
Mothers received medical care at delivery	0.699	0.064	390	185	2.416	0.091	0.571	0.826
Child having health card, seen	0.345	0.091	73	34	1.644	0.265	0.162	0.527
Child received BCG vaccination	0.680	0.079	73	34	1.445	0.116	0.523	0.838
Child received DPT vaccination (3 doses)	0.507	0.083	73	34	1.424	0.164	0.341	0.674
Child received polio vaccination (3 doses)	0.531	0.078	73	34	1.345	0.148	0.374	0.688
Child received measles vaccination	0.636	0.087	73	34	1.551	0.137	0.462	0.811
Child fully immunized	0.378	0.074	73	34	1.311	0.196	0.230	0.527
Height-for-age (-2SD)	0.168	0.029	349	166	1.316	0.170	0.111	0.225
Weight-for-height (-2SD)	0.013	0.006	349	166	0.999	0.464	0.001	0.024
Weight-for-age (-2SD)	0.067	0.015	349	166	1.137	0.218	0.038	0.096
BMI < 18.5	0.007	0.007	242	115	1.302	0.983	0.000	0.021
Has heard of HIV/AIDS	0.814	0.030	256	120	1.246	0.037	0.754	0.875
Knows about condoms	0.160	0.020	256	120	0.852	0.122	0.121	0.199
Knows about limiting partners	0.124	0.029	256	120	1.382	0.230	0.067	0.181

NA = Not applicable



Table C.20 Sampling errors: Central East Anatolia Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.568	0.019	566	389	0.904	0.033	0.530	0.606
No education	0.502	0.034	566	389	1.614	0.068	0.434	0.569
With secondary education or higher	0.157	0.023	566	389	1.492	0.145	0.112	0.203
Currently married (in union)	0.971	0.007	566	389	1.003	0.007	0.956	0.985
Currently pregnant	0.080	0.013	872	615	1.162	0.165	0.053	0.106
Children ever born	2.235	0.226	872	615	0.991	0.101	1.784	2.686
Children surviving	2.001	0.196	872	615	0.969	0.098	1.609	2.393
Children ever born to women 40-49	5.649	0.428	131	89	1.467	0.076	4.794	6.504
Knowing any contraceptive method	0.995	0.003	549	378	1.028	0.003	0.988	1.000
Knowing any modern contraceptive method	0.985	0.006	549	378	1.097	0.006	0.974	0.997
Ever used any contraceptive method	0.789	0.019	549	378	1.117	0.025	0.750	0.828
Currently using any contraceptive method	0.572	0.026	549	378	1.238	0.046	0.519	0.624
Currently using a modern method	0.318	0.019	549	378	0.956	0.060	0.280	0.356
Currently using pill	0.055	0.012	549	378	1.227	0.218	0.031	0.078
Currently using IUD	0.155	0.014	549	378	0.916	0.091	0.127	0.184
Currently using condom	0.070	0.013	549	378	1.189	0.186	0.044	0.095
Currently using injectables	0.005	0.003	549	378	1.018	0.588	0.000	0.012
Currently using female sterilization	0.031	0.007	549	378	0.991	0.236	0.016	0.046
Currently using periodic abstinence	0.003	0.002	549	378	0.932	0.708	0.000	0.008
Currently using withdrawal	0.248	0.029	549	378	1.564	0.116	0.190	0.306
Obtained method from public sector source	0.660	0.046	183	120	1.306	0.069	0.568	0.752
Want no more children	0.601	0.033	287	196	1.148	0.055	0.535	0.668
Want to delay birth at least 2 years	0.174	0.023	287	196	1.044	0.135	0.127	0.221
Ideal number of children	2.763	0.105	292	200	1.409	0.038	2.553	2.973
Mothers received medical care at delivery	0.531	0.054	439	314	1.874	0.101	0.424	0.638
Child having health card, seen	0.244	0.045	80	58	0.970	0.186	0.153	0.335
Child received BCG vaccination	0.640	0.065	80	58	1.250	0.102	0.510	0.771
Child received DPT vaccination (3 doses)	0.427	0.047	80	58	0.863	0.109	0.334	0.520
Child received polio vaccination (3 doses)	0.517	0.048	80	58	0.889	0.094	0.420	0.614
Child received measles vaccination	0.581	0.064	80	58	1.191	0.110	0.453	0.709
Child fully immunized	0.326	0.055	80	58	1.078	0.169	0.216	0.436
Height-for-age (-2SD)	0.266	0.039	392	280	1.650	0.145	0.189	0.344
Weight-for-height (-2SD)	0.003	0.003	392	280	1.126	0.999	0.000	0.009
Weight-for-age (-2SD)	0.096	0.026	392	280	1.588	0.272	0.044	0.149
BMI < 18.5	0.024	0.016	245	171	1.663	0.678	0.000	0.056
Has heard of HIV/AIDS	0.684	0.040	294	201	1.456	0.058	0.605	0.763
Knows about condoms	0.102	0.022	294	201	1.255	0.217	0.058	0.146
Knows about limiting partners	0.095	0.018	294	201	1.046	0.188	0.059	0.131

NA = Not applicable

Table C.21 Sampling errors: Southeast Anatolia Region, Turkey 2003

Variable	Value R	Standard error SE	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Un- weighted (N)	Weighted (WN)			R-2SE	R+2SE
Urban residence	0.660	0.016	1145	671	1.132	0.024	0.628	0.691
No education	0.563	0.029	1145	671	1.986	0.052	0.505	0.622
With secondary education or higher	0.118	0.020	1145	671	2.104	0.170	0.078	0.158
Currently married (in union)	0.957	0.006	1145	671	1.025	0.006	0.945	0.970
Currently pregnant	0.067	0.005	1822	1069	0.840	0.081	0.056	0.078
Children ever born	2.490	0.180	1822	1069	1.073	0.072	2.130	2.849
Children surviving	2.256	0.170	1822	1069	1.124	0.075	1.916	2.595
Children ever born to women 40-49	6.607	0.289	234	137	1.316	0.044	6.028	7.186
Knowing any contraceptive method	0.997	0.002	1096	642	0.981	0.002	0.994	1.000
Knowing any modern contraceptive method	0.996	0.002	1096	642	0.976	0.002	0.993	1.000
Ever used any contraceptive method	0.756	0.028	1096	642	2.156	0.037	0.700	0.812
Currently using any contraceptive method	0.559	0.026	1096	642	1.704	0.046	0.508	0.610
Currently using a modern method	0.301	0.019	1096	642	1.374	0.063	0.263	0.339
Currently using pill	0.046	0.007	1096	642	1.073	0.148	0.032	0.059
Currently using IUD	0.125	0.012	1096	642	1.214	0.097	0.101	0.150
Currently using condom	0.079	0.009	1096	642	1.160	0.120	0.060	0.097
Currently using injectables	0.009	0.002	1096	642	0.781	0.246	0.005	0.014
Currently using female sterilization	0.041	0.006	1096	642	1.061	0.155	0.028	0.054
Currently using periodic abstinence	0.005	0.003	1096	642	1.325	0.542	0.000	0.011
Currently using withdrawal	0.227	0.017	1096	642	1.340	0.075	0.193	0.261
Obtained method from public sector source	0.591	0.025	328	194	0.933	0.043	0.540	0.641
Want no more children	0.568	0.019	556	323	0.903	0.033	0.530	0.606
Want to delay birth at least 2 years	0.175	0.014	556	323	0.858	0.079	0.147	0.202
Ideal number of children	3.433	0.091	550	320	1.333	0.027	3.251	3.615
Mothers received medical care at delivery	0.600	0.032	1148	670	1.687	0.053	0.537	0.664
Child having health card, seen	0.329	0.048	202	118	1.427	0.145	0.234	0.424
Child received BCG vaccination	0.709	0.050	202	118	1.502	0.070	0.610	0.808
Child received DPT vaccination (3 doses)	0.434	0.056	202	118	1.575	0.129	0.322	0.545
Child received polio vaccination (3 doses)	0.522	0.050	202	118	1.407	0.096	0.421	0.622
Child received measles vaccination	0.567	0.055	202	118	1.533	0.097	0.457	0.677
Child fully immunized	0.350	0.050	202	118	1.462	0.142	0.250	0.449
Height-for-age (-2SD)	0.221	0.016	1015	592	1.146	0.073	0.189	0.253
Weight-for-height (-2SD)	0.009	0.003	1015	592	0.968	0.322	0.003	0.014
Weight-for-age (-2SD)	0.071	0.011	1015	592	1.259	0.153	0.049	0.092
BMI < 18.5	0.016	0.005	562	329	1.004	0.331	0.005	0.027
Has heard of HIV/AIDS	0.650	0.028	571	332	1.379	0.042	0.595	0.705
Knows about condoms	0.109	0.012	571	332	0.911	0.109	0.086	0.133
Knows about limiting partners	0.155	0.016	571	332	1.075	0.105	0.122	0.188
Total fertility rate (last 3 years)	4.193	0.240	NA	2976	1.381	0.057	3.714	4.672
Neonatal mortality (last 5 years)	21.094	4.374	1146	668	1.045	0.207	12.346	29.841
Post-neonatal mortality (last 5 years)	16.492	3.734	1146	668	1.002	0.226	9.025	23.959
Infant mortality (last 5 years)	37.586	5.696	1146	668	0.998	0.152	26.193	48.979
Child mortality (last 5 years)	8.526	2.409	1149	670	0.895	0.283	3.709	13.344
Under-five mortality (last 5 years)	45.792	5.748	1149	670	0.922	0.126	34.295	57.288

NA = Not applicable

*İsmet Koç*

This appendix provides an initial assessment of the quality of the TDHS-2003 data. For this purpose, a number of topics including the misreporting of ages and respondent's recall problems are investigated.

Table D.1 presents the distribution of the *de facto* household population by single years of age. Heaping is observed in the reporting of ages ending with 0 and 5, especially in the older ages for both males and females. The table does not show any evidence that interviewers 'aged' children out of the eligible range for the collection of height and weight and health data; the proportion of children reported to be five years of age at the time of the survey is almost equal to the proportions age four and six. There also appears to have been little shifting of older women past age 49, the upper limit of eligibility of individual interview.

Table D.2 examines the possibility that some eligible women were not properly identified in the TDHS-2003. During the household interview, 11,815 women age 15-49 were recorded, among whom 8,255 have been married and were, therefore, eligible for individual interview. Of these women, 7,869 were successfully interviewed, yielding a response rate of 95 percent. Response rates vary slightly by age group. In particular, response rates were somewhat lower for the oldest and youngest age groups indicating that interviewers may have been somewhat less diligent in pursuing interviews with women at the two extremes of the eligible age range.

Another indicator of the quality of survey data is the extent to which information is missing on key variable. Information on the completeness of reporting in connection with a set of important variables is provided in Table D.3. Among births in the 15 years preceding the survey, 4 percent are missing information on year of birth. Information on age at death is missing for just 1 percent of these births. Information regarding their age or date at first union was not obtained for less than one percent of ever-married women. Height or weight measurements are missing for approximately 8 percent of the children under age 5. Compared with data from TDHS-1998, these figures show that the extent of missing information in the survey remains very limited.

Table D.4 is presented to investigate whether there is any bias in the data with regard to the reporting of births. The results suggest that there was no deliberate attempt by interviewers to reduce their work loads by shortening the interview by aging children out of the reference period. This is shown by the ratio of births in 1998 (which was the lower calendar year boundary for identifying births for which health and other data was collected) to the average of the two adjoining years (105), while that for births in 1997 it is 97. A similar pattern was found in the calendar year ratios for dead children. Sex ratios vary year without any indication of bias. Mothers seem to have better recall of dead male children than dead female children, as indicated by the much higher sex ratios for dead children.

Table D.5 shows that there is a heaping in the reporting of age at death at seven days or one week. A surplus of deaths is also reported at eight days among births in the 5-9 years preceding the survey. Additionally, a surplus in the all five-year periods is found at age at death of 15 and 20 days. The proportion of early neonatal deaths among all neonatal deaths is higher in the most recent years (73 percent) compared to 5-9 years (62 percent) preceding the survey, consistent with declining infant mortality rates. The same conclusion can be drawn from higher proportion of neonatal deaths among all deaths in Table D.6. It is interesting to note that there is no significant heaping in age at death of 12 months.

Table D.1 Age distribution of <i>de facto</i> household population									
Single-year age distribution of the <i>de facto</i> household population by sex (weighted), Turkey 2003									
Age	Males		Females		Age	Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
0	370	1.7	399	1.9	37	298	1.4	249	1.2
1	348	1.6	354	1.7	38	327	1.5	324	1.6
2	404	1.8	447	2.1	39	334	1.5	271	1.3
3	414	1.9	479	2.3	40	306	1.4	335	1.6
4	404	1.8	403	1.9	41	262	1.2	203	1.0
5	408	1.9	409	2.0	42	274	1.2	260	1.2
6	408	1.9	421	2.0	43	316	1.4	284	1.4
7	432	2.0	438	2.1	44	250	1.1	256	1.2
8	439	2.0	447	2.1	45	287	1.3	280	1.3
9	412	1.9	400	1.9	46	215	1.0	195	0.9
10	433	2.0	412	2.0	47	225	1.0	253	1.2
11	439	2.0	427	2.1	48	242	1.1	235	1.1
12	376	1.7	416	2.0	49	166	0.8	205	1.0
13	453	2.1	450	2.2	50	198	0.9	235	1.1
14	424	1.9	414	2.0	51	193	0.9	152	0.7
15	387	1.8	386	1.9	52	240	1.1	189	0.9
16	445	2.0	450	2.2	53	243	1.1	191	0.9
17	468	2.1	456	2.2	54	196	0.9	165	0.8
18	435	2.0	414	2.0	55	220	1.0	212	1.0
19	369	1.7	372	1.8	56	125	0.6	145	0.7
20	442	2.0	246	1.2	57	139	0.6	125	0.6
21	364	1.7	303	1.5	58	169	0.8	161	0.8
22	484	2.2	381	1.8	59	91	0.4	142	0.7
23	435	2.0	397	1.9	60	185	0.8	132	0.6
24	411	1.9	369	1.8	61	83	0.4	110	0.5
25	409	1.9	362	1.7	62	107	0.5	97	0.5
26	412	1.9	327	1.6	63	133	0.6	120	0.6
27	343	1.6	304	1.5	64	128	0.6	97	0.5
28	374	1.7	324	1.6	65	220	1.0	173	0.8
29	337	1.5	319	1.5	66	97	0.4	81	0.4
30	414	1.9	375	1.8	67	120	0.5	81	0.4
31	305	1.4	286	1.4	68	91	0.4	75	0.4
32	311	1.4	329	1.6	69	77	0.4	67	0.3
33	334	1.5	299	1.4	70+	971	4.4	892	4.3
34	283	1.3	284	1.4	DK/missing	4	0.0	18	0.1
35	325	1.5	307	1.5					
36	224	1.0	227	1.1					
					Total	22,010	100.0	20,842	100.0

DK = Don't know  
Note: The *de facto* population includes all residents and nonresidents who slept in the household the night before the interview.

**Table D.2 Age distribution of eligible and interviewed women**

De facto household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Turkey 2003

Age group	Household population of women age 10-54	Ever-married women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
			Number	Percent	
10-14	2,126	1	NA	NA	NA
15-19	2,103	252	234	3.0	92.9
20-24	2,137	1,058	1,030	13.1	96.5
25-29	1,876	1,503	1,438	18.3	95.7
30-34	1,647	1,509	1,448	18.4	95.9
35-39	1,508	1,449	1,385	17.6	95.6
40-44	1,408	1,355	1,297	16.5	94.9
45-49	1,135	1,117	1,037	13.2	92.8
50-54	1,070	1,055	NA	NA	NA
15-49	11,815	8,255	7,869	100	95.2

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule.  
NA = Not applicable

**Table D.3 Completeness of reporting**

Percentage of observations missing information for selected demographic and health questions (weighted), Turkey 2003

Subject	Reference group	Percentage with missing information	Number of cases
<b>Birth date</b>	Births in the 15 years preceding the survey		
Month only		3.7	12,646
Month and year		1.2	12,646
<b>Age at death</b>	Deceased children born in the 15 years preceding the survey	0.4	673
<b>Age/date at first union<sup>1</sup></b>	Ever-married women age 15-49	0.1	8,075
<b>Respondent's education</b>	All women age 15-49	0.0	8,075
<b>Anthropometry</b>	Living children age 0-59 months (from the household questionnaire)		
Height		7.3	3,998
Weight		5.5	3,998
Height or weight		7.6	3,998

<sup>1</sup> Both year and age missing

Table D.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Turkey 2003

Calendar year	Number of births			Percentage with complete birth date <sup>1</sup>			Sex ratio at birth <sup>2</sup>			Calendar year ratio <sup>3</sup>		
	L	D	T	L	D	T	L	D	T	L	D	T
2004	852	26	878	99.9	97.7	99.9	114.2	98.2	113.7	NA	NA	NA
2003	840	37	878	100.0	100.0	100.0	111.5	117.8	111.8	NA	NA	NA
2002	817	27	844	99.9	96.2	99.8	93.8	182.2	95.8	100.5	82.5	99.8
2001	785	29	814	100.0	100.0	100.0	111.2	76.4	109.7	91.6	78.5	91.0
2000	898	46	943	96.1	70.9	94.3	95.2	174.9	98.0	111.8	109.4	111.7
1999	821	55	876	94.4	79.4	93.4	96.7	76.8	95.3	94.5	106.5	95.2
1998	840	58	897	93.4	75.5	92.3	104.9	90.2	103.9	104.7	108.8	105.0
1997	782	51	833	92.6	81.7	92.0	102.2	150.0	104.6	96.8	95.8	96.7
1996	778	48	826	92.9	74.1	91.8	98.1	110.3	98.8	98.5	91.5	98.1
1995	796	55	851	93.0	64.2	91.1	94.8	121	96.3	105.5	96.0	104.8
2000-2004	4,193	165	4,357	99.1	90.9	98.8	104.7	126.7	105.4	NA	NA	NA
1995-1999	4,016	267	4,283	93.3	74.9	92.1	99.3	105.9	99.7	NA	NA	NA
1990-1994	3,684	326	4,011	92.5	72.2	90.8	106	118.3	106.9	NA	NA	NA
1985-1989	3,180	347	3,527	91.5	77.3	90.1	109.1	107.8	109	NA	NA	NA
<1985	2,824	545	3,369	91.2	74.6	88.5	100.5	107.1	101.5	NA	NA	NA
All	17,897	1,651	19,547	93.9	76.4	92.4	103.8	111.0	104.4	NA	NA	NA

NA = Not applicable

<sup>1</sup> Both year and month of birth given

<sup>2</sup>  $(B_m/B_f) \times 100$ , where  $B_m$  and  $B_f$  are the numbers of male and female births, respectively

<sup>3</sup>  $[2B_x / (B_{x-1} + B_{x+1})] \times 100$ , where  $B_x$  is the number of births in calendar year x

Table D.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Turkey 2003

Age at death (days)	Number of years preceding survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	23	28	44	27	122
1	12	13	22	24	72
2	4	4	12	4	24
3	8	9	16	14	47
4	4	4	5	1	14
5	1	3	2	2	7
6	0	2	1	1	4
7	5	11	11	12	39
8	0	14	0	2	6
9	0	1	0	3	4
10	2	1	2	1	6
11	0	1	0	1	2
12	2	3	1	0	6
13	0	2	0	0	2
14	0	0	1	1	2
15	3	3	7	5	18
16	1	0	0	0	1
17	1	2	3	2	8
18	0	1	1	0	2
19	2	1	0	1	3
20	2	2	3	10	16
21	1	1	0	0	2
22	0	1	0	0	1
23	0	2	0	1	3
24	0	0	0	0	2
25	2	0	0	1	0
26	0	0	0	1	1
27	0	0	0	1	1
28	0	2	2	0	4
29	0	1	4	0	5
30	0	0	1	1	2
Percent early neonatal <sup>1</sup>	73	62	74	63	68

<sup>1</sup> ≤ 6 days / ≤ 30 days



**Table D.6 Reporting of age at death in months**

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey (weighted), Turkey 2003

Age at death (months)	Number of years preceding survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1*	71	103	137	116	426
1	11	20	11	28	71
2	4	9	16	16	45
3	9	14	16	18	57
4	3	10	11	12	36
5	4	6	10	10	30
6	5	8	9	20	42
7	3	7	11	11	32
8	2	6	6	11	25
9	0	5	5	5	16
10	1	4	1	4	10
11	0	3	1	5	9
12	3	5	13	7	28
13	1	1	1	2	5
14	3	0	2	1	6
15	1	1	2	2	6
16	1	0	0	0	1
17	0	0	0	0	0
18	3	2	4	1	10
19	2	1	0	0	3
20	0	0	0	0	0
21	0	0	0	0	0
22	0	0	1	0	1
23	0	0	0	0	0
Percent early neonatal <sup>1</sup>	63	53	58	45	54

<sup>2</sup>Includes deaths under one month reported in days

<sup>1</sup>Under one month / under one year

**HACETTEPE UNIVERSITY INSTITUTE OF POPULATION STUDIES**  
**2003 TURKISH DEMOGRAPHIC AND HEALTH SURVEY**  
**HOUSEHOLD QUESTIONNAIRE**

IDENTIFICATION	
CLUSTER NO.....	PROVINCE _____
HOUSEHOLD NO .....	DISTRICT _____
5 REGIONS.....	SUB-DISTRICT _____
12 REGIONS .....	VILLAGE _____
PLACE OF RESIDENCE-URBAN(1)-RURAL(2) .....	QUARTER _____
İSTANBUL METROPOLITAN HH. - YES (1) NO (2) .....	STREET _____ NO _____

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE (DAY-MONTH)	__ __	__ __	__ __	[ ][ ] [ ][ ]
NAME-SURNAME OF INTERVIEWER	_____	_____	_____	[ ][ ][ ]
RESULT (*)	__	__	__	[ ][ ]
DATE NEXT VISIT TIME	__ __ __ __	__ __ __ __		TOTAL NUMBER OF VISITS [ ]

(*) RESULT CODES	NUMBER OF PERSONS
01 COMPLETED	TOTAL IN HOUSEHOLD..... [ ][ ]
02 NONE OF THE HOUSEHOLD MEMBERS OR NO ELIGIBLE MEMBER PRESENT AT HOME DURING VISITS	TOTAL USUAL RESIDENTS OF HOUSEHOLD..... [ ][ ]
03 NONE OF THE HOUSEHOLD MEMBERS PRESENT AT HOME DURING THE SURVEY PERIOD	TOTAL EVER MARRIED 15-49 WOMEN ..... [ ][ ]
04 POSTPONED	
05 REFUSED	
06 DWELLING VACANT/ADDRESS NOT A DWELLING	
07 DWELLING DESTROYED	
08 DWELLING NOT FOUND	
09 PARTLY COMPLETED	
96 OTHER _____ (SPECIFY)	

SUPERVISOR	FIELD EDITOR	KEYER
[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ]
DAY-MONTH [ ][ ] [ ][ ]	DAY-MONTH [ ][ ] [ ][ ]	DAY-MONTH [ ][ ] [ ][ ]

HOUR   MINUTE

**SECTION 1 – HOUSEHOLD LIST**

Now I would like some information about people in this household, such as age and education.

HH LINE NO	HOUSEHOLD LIST <i>ADD BY ASKING A-B-C-D-E</i>	RELATIONSHIP TO HEAD OF HH	HH MEMBERSHIP		SEX	AGE
	A. Would you please tell me the names of the persons living in this household beginning with the household head? B. Is there anyone who usually lives in this house but is absent at present? C. Additionally, are there persons who do not live here but who have stayed here last night? D. Are there any other persons such as small children or infants? E. Are there any others who are not members of your family but live here, such as lodgers, friends, servants?	What is the relationship of ..... to the household head?  <i>USE CODE LIST.</i>	Does ..... usually live here?  YES .....1 NO .....2	Did ..... sleep here last night?  YES .....1 NO .....2	Is ..... male or female?  MALE ..... 1 FEMALE .. 2	How old is .....? (what age has ..... completed?)  <i>OBTAIN AGE IN COMPLETED YEARS. IF OLDER THAN 95, WRITE "95".</i>
<b>(01)</b>	<b>(02)</b>	<b>(03)</b>	<b>(04)</b>	<b>(05)</b>	<b>(06)</b>	<b>(07)</b>
<b>01</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>02</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>03</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>04</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>05</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>06</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>07</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>08</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>09</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>
<b>10</b>		<input type="text"/> <input type="text"/>	1 2	1 2	1 2	<input type="text"/> <input type="text"/>

IF ADDITIONAL QUESTIONNAIRE IS USED TICK HERE AND PROCEED WITH THE REST OF THE INTERVIEW ON THE ADDITIONAL FORM

<b>(03) CODES FOR RELATIONSHIP TO HOUSEHOLD HEAD</b>			
<b>01</b> HEAD	<b>08</b> SIBLING	<b>15</b> GRAND PARENT	<b>22</b> SECOND WIFE
<b>02</b> WIFE/HUSBAND	<b>09</b> SIBLING'S SPOUSE	<b>16</b> GRAND PARENT –IN- LAW	<b>23</b> HUSBAND'S SECOND WIFE
<b>03</b> SON/DAUGHTER	<b>10</b> SIBLING'S CHILD	<b>17</b> SIBLING –IN- LAW	
<b>04</b> SON/DAUGHTER- IN -LAW	<b>11</b> FATHER'S SIBLING	<b>18</b> SIBLING –IN- LAW'S SPOUSE	<b>88</b> NOT RELATED
<b>05</b> GRANDCHILD	<b>12</b> MOTHER'S SIBLING	<b>19</b> SIBLING –IN-LAW'S CHILD	<b>96</b> OTHER RELATIVE
<b>06</b> PARENT	<b>13</b> STEP CHILD	<b>20</b> FATHER –IN-LAW'S SIBLING	
<b>07</b> PARENT -IN -LAW	<b>14</b> COUSIN	<b>21</b> MOTHER-IN-LAW'S SIBLING	<b>98</b> DK

HH LINE NO	PLACE OF BIRTH	RESIDENCE	MATERNAL SURVIVAL			
	In which province was ..... born?  <i>RECORD THE PROVINCE THAT PLACE OF BIRTH IS IN AT PRESENT. USE PROVINCE TRAFFIC CODES.  RECORD "90" FOR ABROAD.</i>	<i>CHECK (04): IF PERSON USUALLY LIVES IN THIS HOUSE SKIP TO QUESTION 10. IF NOT, ASK.</i>  Where is..... living now?  TYPE OF PLACE OF RESIDENCE: PROVINCE CENTER.....1 DISTRICT CENTER.....2 SUB-DISTRICT/VILLAGE.....3 ABROAD.....4	Is.....'s natural mother alive?  ALIVE.....1 DEAD.....2 DK.....8	<i>RECORD LINE NO. IF LISTED IN THE HOUSE. RECORD "96" IF LIVING ELSEWHERE.</i>		
(01)	(08)	(09A) PLACE OF RES.	(09B) PROVIN.	(09C) TYPE	(10)	(11)
01	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
02	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
03	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
04	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
05	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
06	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
07	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
08	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
09	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>
10	<input type="text"/>	_____	<input type="text"/>	<input type="text"/>	1 2 8 └──┬──┬──▶ 12	<input type="text"/>

HH LINE NO	PATERNAL SURVIVAL		MIGRATION AND MOBILITY			
			AGE 5 AND OVER			
	Is.....'s natural father alive?  ALIVE ..... 1 DEAD ..... 2 DK ..... 8	  <i>RECORD LINE NO. IF LISTED IN THE HOUSE. RECORD "96" IF LIVING ELSEWHERE.</i>	Where was..... living five years ago? In ..... (CURRENT CITY, TOWN OR VILLAGE) or in other place?  SAME PLACE .....1 OTHER PLACE .....2 DK.....8	Was ..... living in this house or in another house?  SAME H.....1 OTHER H.....2	In which province was..... living?  <i>RECORD THE PRESENT PROVINCE THAT PLACE OF RESIDENCE IS IN. PROVINCE TRAFFIC CODES. RECORD "90" FOR ABROAD.</i>	What type of place was it?  <i>RECORD ACCORDING TO TYPE OF PLACE OF RESIDENCE 5 YEARS BEFORE.</i>  PROVINCE CENTER... 1 DISTRICT CENTER.... 2 SUB-DIST./VILLAGE.. 3 ABROAD ..... 4
(01)	(12)	(13)	(14)	(15)	(16)	(17)
01	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
02	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
03	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
04	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
05	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
06	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
07	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
08	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
09	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4
10	1    2    8 └─┬─┘→ 14	<input type="text"/>	1    2    8 └─┬─┘→ 16    └─┬─┘→ 18	1    2 └─┬─┘→ 18	<input type="text"/>	1    2    3    4

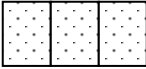
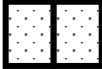








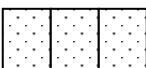




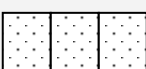














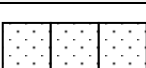




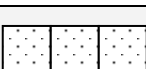




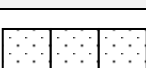




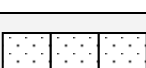




HH LINE NO	LITERACY AND EDUCATION STATUS				SCHOOL ATTENDANCE	
	AGE 6 AND OVER				AGE 6-24	
	Is ..... literate?	Has ..... ever been to school?	What is the highest level of school ..... attended? What is the highest grade ..... completed at that level?	Did ..... graduate from this school? (Did ..... receive a diploma?)	Is ..... attending school this educational year?	Which level of school and grade is ..... attending?
YES..... 1 NO ..... 2 DK ..... 8	YES..... 1 NO..... 2 DK..... 8	USE CODE LIST. SCHOOL GRADE	YES..... 1 NO..... 2 DK..... 8	YES..... 1 NO..... 2 DK..... 8	USE CODE LIST. SCHOOL GRADE	
(01)	(18)	(19)	(20A) (20B)	(21)	(22)	(23A) (23B)
01	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
02	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
03	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
04	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
05	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
06	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
07	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
08	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
09	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>
10	1 2 8	1 2 8 └──┬──> 26	<input type="text"/> <input type="text"/>	1 2 8	1 2 8 └──┬──> 24	<input type="text"/> <input type="text"/>

(20A-23A-25A) LEVEL CODES
1 PRIMARY SCHOOL
2 SECONDARY SCHOOL
3 PRIMARY EDUCATION
4 HIGH SCHOOL
5 UNIVERSITY
6 MASTER/Ph.D AND OVER
8 DK

(20B-23B-25B) GRADE CODES
00 LESS THAN ONE YEAR/PREPARATORY LEVEL
66 MASTER/Ph.D
98 DK

HH LINE NO	SCHOOL ATTENDANCE		WORK STATUS		
	AGE 6-24		AGE 12 AND OVER		
	Did ..... attend school last year? (2002-2003)  YES..... 1 NO ..... 2 DK ..... 8	Wich level of school and grade did..... attend?  <i>USE CODE LIST.</i>  SCHOOL GRADE	Did..... work in any job in last week whether payed or unpaid? <i>(IF NO)</i> As you know, some people do temporary jobs; they work on their families' workplaces or fields paid or unpaid. Did ..... work in such kind of a job?  YES.....1 NO .....2	You said ..... didn't work in last week. If so, does ..... have a job that he/she usually works?  YES ..... 1 NO ..... 2	Why didn't ..... work last week?  <i>USE CODE LIST.</i>
(01)	(24)	(25A) (25B)	(26)	(27)	(28)
01	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
02	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
03	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
04	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
05	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
06	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
07	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
08	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
09	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>
10	1 2 3 8 └─┬─┬─┬─┐ 26	<input type="text"/> <input type="text"/> <input type="text"/>	1 2 └─┬─┐ 29A	1 2 └─┬─┐ 34	<input type="text"/> <input type="text"/>

(28) REASON OF NOT WORKING IN LAST WEEK	
01 HOLIDAY, ON VACATION	06 NOT WORKING SEASON
02 PREGNANCY/BIRTH LEAVE	07 WORKPLACE IS CLOSED, INACTIVE
03 SICK, UNABLE TO WORK	06 OTHER
04 BUSINESS TRIP/EDUCATION/ TRAINING	09 DK
05 UNPAID VACATION	

HH LINE NO	WORK STATUS AGE 12 AND OVER				
	What is/was ..... doing?  <i>RECORD TYPE OF WORK, PLACE OF WORK AND STATUS IN WORK IN DETAIL AND SKIP TO QUESTION 30.</i>	<i>IT IS GOING TO BE CODED BY SUPERVISOR/ FIELD EDITOR</i>	ECONOMIC ACTIVITY, TYPE OF WORKPLACE AND PLACE OF WORK  <i>USE CODE LISTS.</i>		
(01)	(29A)	(29B)	(30)	(31)	(32)
01	_____ 				
02	_____ 				
03	_____ 				
04	_____ 				
05	_____ 				
06	_____ 				
07	_____ 				
08	_____ 				
09	_____ 				
10	_____ 				

(30) POSITION AT WORK	(31) TYPE OF WP	(32) PLACE OF WORK
01 EMPLOYER (10+ EMPLOYEES) 02 EMPLOYER (1-9 EMPLOYEES) 03 WAGED, WORKER (REGULAR) 04 SALARIED, GOVERNMENT OFFICIAL (REGULAR) 05 DAILY WAGED (SEASONAL/TEMPORARY) 06 SELF-EMPLOYED (REGULAR) 07 SELF-EMPLOYED (IRREGULAR) 08 UNPAID FAMILY WORKER  96 OTHER 98 DK	01 GOVERNMENT 02 ASSOCIATION/ FOUNDATION/ VOLUNTEER ORGANIZATION. 03 PRIVATE  96 OTHER 98 DK	01 FARM/GARDEN 02 HOUSE (OWN) 03 HOUSE (SOMEONE ELSE'S) 04 REGULAR WORKPLACE 05 MOBILE 06 VARYING WORKPLACE 07 MARKET PLACE  96 OTHER 98 DK



HH LINE NO	WORK STATUS			
	AGE 12 AND OVER			
	Does ..... pay social security when doing this job? (IF YES) According to which schedule?  <i>USE CODE LIST.</i>	What is the main reason of ..... for not working (What does ..... do? Why ..... does not work?)  <i>USE CODE LIST.</i>	Is ..... looking for a job these days?  YES ..... 1 NO ..... 2 DK ..... 8	When was..... 's last attempt to find job?  NEVER ..... 0 LAST MONTH ..... 1 2-3 MONTHS AGO ..... 2 4-6 MONTHS AGO ..... 3 7 MONTHS AND MORE ..... 4 DK ..... 8
<b>(01)</b>	<b>(33)</b>	<b>(34)</b>	<b>(35)</b>	<b>(36)</b>
<b>01</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>02</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>03</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>04</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>05</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>06</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>07</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>08</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>09</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8
<b>10</b>	<input type="text"/> <input type="text"/> → 37	<input type="text"/> <input type="text"/>	1 2 8 └→ 37	0 1 2 3 4 8

(33) SOCIAL SECURITY
00 HAS NO SOCIAL SECURITY
01 SSK
02 EMEKLİ SANDIĞI
03 BAĞ-KUR
04 PRIVATE
96 OTHER
98 DK

(34) REASON FOR NOT WORKING	
01 WILL START NEW JOB	12 LOOKING FOR JOB/UNEMPLOYED
02 STUDENT	13 TOO YOUNG TO WORK
03 HOUSEWIFE	14 JUST GRADUATED
04 RETIRED	15 SPOUSE/FAMILY DOES NOT ALLOW
05 INCOME RECIPIENT	16 JUST MIGRATED
06 FAMILY WORKER	17 NO NEED TO WORK
07 HANDICAPPED/SICK	18 NO SKILL/EDUCATION
08 LOOKS AFTER ELDERLY	96 OTHER
09 LOOKS AFTER CHILD	98 DK
10 WILL MARRY SOON	
11 WILL BE CONSCRIPTED	

HH LINE NO	MARITAL STATUS AGE 12 AND OVER		
	Has ..... ever married?  YES..... 1 NO ..... 2	What is.....'s marital status?  CURRENTLY MARRIED ..... 1 WIDOWED ..... 2 DIVORCED ..... 3 SEPARATED ..... 4 DK ..... 8	<i>RECORD HH LINE NO OF SPOUSE.</i>  <i>IF SPOUSE NOT IN THE HOUSEHOLD LIST, RECORD "96".</i>
(01)	(37)	(38)	(39)
01	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
02	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
03	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
04	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
05	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
06	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
07	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
08	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
09	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>
10	1    2 └─▶47	1    2    3    4    8 └─┬─┬─┬─▶46	<input type="text"/> <input type="text"/>

HANE SATIR NO	ELIGIBILITY FOR INDIVIDUAL INTERVIEW	ELIGIBILITY TO NEVER MARRIED WOMEN'S INFORMATION FORM	ELIGIBILITY TO THE WELFARE OF THE ELDERLY MODULE
	<i>CIRCLE LINE NUMBER IF EVER MARRIED WOMAN AGE 15 – 49 AND SKIP TO NEXT PERSON.  IF NOT SKIP TO 48.</i>	<i>CIRCLE LINE NUMBER IF NEVER MARRIED WOMAN AGE 15 – 49 AND SKIP TO NEXT PERSON.  IF NOT SKIP TO 48.</i>	<i>CIRCLE LINE NUMBER IF PERSON IS 60 OR OVER  SKIP TO NEXT PERSON</i>
<b>(01)</b>	<b>(46)</b>	<b>(47)</b>	<b>(48)</b>
<b>01</b>	<b>01</b>	<b>01</b>	<b>01</b>
<b>02</b>	<b>02</b>	<b>02</b>	<b>02</b>
<b>03</b>	<b>03</b>	<b>03</b>	<b>03</b>
<b>04</b>	<b>04</b>	<b>04</b>	<b>04</b>
<b>05</b>	<b>05</b>	<b>05</b>	<b>05</b>
<b>06</b>	<b>06</b>	<b>06</b>	<b>06</b>
<b>07</b>	<b>07</b>	<b>07</b>	<b>07</b>
<b>08</b>	<b>08</b>	<b>08</b>	<b>08</b>
<b>09</b>	<b>09</b>	<b>09</b>	<b>09</b>
<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

***AFTER COMPLETING THE HOUSEHOLD LIST, TURN BACK TO THE COVER PAGE AND COMPLETE THE NUMBERS OF PERSONS SECTION.***

## SECTION 1B. NEVER MARRIED WOMAN INFORMATION FORM

<b>50</b>	<p><i>CHECK 46; IN THE HOUSEHOLD LIST,</i></p> <p style="text-align: center;">             AT LEAST ONE PERSON WAS RECORDED <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="checkbox"/> <span style="margin-left: 200px;">NOBODY WAS RECORDED <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="checkbox"/></span> </p> <p style="text-align: right; margin-right: 10px;">→ 60</p>	
<b>51</b>	TOTAL NUMBER OF NEVER MARRIED WOMEN IN QUESTION 46 ..... <input style="width: 40px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>	

*RECORD THE NAMES AND THE LINE NUMBERS OF NEVER MARRIED WOMEN. ASK THE QUESTIONS SEPARATELY FOR EACH RECORDED WOMAN. IF THERE IS MORE THAN ONE NEVER MARRIED WOMAN, BEGIN WITH THE WOMEN AT THE TOP OF LIST. IF THERE ARE MORE THAN TWO NEVER MARRIED WOMEN, USE ADDITIONAL QUESTIONNAIRE.*

	<i>FROM Q02</i>	NAME _____	NAME _____	
	<i>FROM Q01</i>	LINE NO ..... <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>	LINE NO ..... <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>	
<b>52</b>	For most of the time until ..... was 12 years old, where did she live?  _____ (NAME OF PLACE)  Was it a province centre, district centre, a subdistrict or village ? Or did you live abroad?	CURRENT RESIDENCE ..... 0 → 54 PROVINCE CENTER ..... 1 DISTRICT CENTER ..... 2 SUBDSITRICT/VILLAGE ..... 3 ABROAD ..... 4  DON'T KNOW ..... 8 → 54	CURRENT RESIDENCE ..... 0 → 54 PROVINCE CENTER ..... 1 DISTRICT CENTER ..... 2 SUBDSITRICT/VILLAGE ..... 3 ABROAD ..... 4  DON'T KNOW ..... 8 → 54	
<b>53</b>	In which province is this place now?  <i>RECORD THE NAME AND CODE OF PROVINCE.</i>	NAME _____ PROVINCE CODE <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>	NAME _____ PROVINCE CODE <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>	
<b>54</b>	How long has she been living continuously in ..... (NAME OF CURRENT PLACE OF INTERVIEW OR USUAL RESIDENCE)	YEAR ..... <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>  SINCE SHE WAS BORN ..... 95 → 57 DON'T KNOW ..... 98	YEAR ..... <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>  SINCE SHE WAS BORN ..... 95 → 57 DON'T KNOW ..... 98	
<b>55</b>	Where did she live before you moved here (there)?  _____ (NAME OF THE PLACE)  Was that a province centre, district centre, a subdistrict or village ? Or did you live abroad?	PROVINCE CENTER ..... 1 DISTRICT CENTER ..... 2 SUBDSITRICT/VILLAGE ..... 3 ABROAD ..... 4  DON'T KNOW ..... 8 → 57	PROVINCE CENTER ..... 1 DISTRICT CENTER ..... 2 SUBDSITRICT/VILLAGE ..... 3 ABROAD ..... 4  DON'T KNOW ..... 8 → 57	
<b>56</b>	In which province is this place now?  <i>RECORD THE NAME AND CODE OF PROVINCE.</i>	NAME _____ PROVINCE CODE <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>	NAME _____ PROVINCE CODE <input style="width: 20px; height: 20px; display: inline-block; vertical-align: middle;" type="text"/>	

	FROM Q02	NAME _____	NAME _____
	FROM Q01	LINE NO ..... <input type="text"/> <input type="text"/>	LINE NO ..... <input type="text"/> <input type="text"/>
57	What is .....’s mother tongue?  <i>RECORD ONLY ONE RESPONSE.</i>	TURKISH ..... 01 KURDSIH ..... 02 ARABIC ..... 03 GREEK, ARMANIAN,HEBREW (LADINO)..... 04 CIRCASSIAN, GEORGIAN, LAZ LANGUAGE..... 05 RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN..... 06  ENGLISH, GERMAN, FRENCH..... 07  OTHER _____ 96 (SPECIFY)  DON’T KNOW ..... 8 → 59A	TURKISH ..... 01 KURDSIH ..... 02 ARABIC ..... 03 GREEK, ARMANIAN,HEBREW (LADINO)..... 04 CIRCASSIAN, GEORGIAN, LAZ LANGUAGE..... 05 RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN..... 06  ENGLISH, GERMAN, FRENCH..... 07  OTHER _____ 96 (SPECIFY)  DON’T KNOW ..... 8 → 59A
58	In addition to her mother tongue, which language(s) can she speak?  <i>RECORD ALL MENTIONED.</i>	TURKISH ..... A KURDSIH ..... B ARABIC ..... C GREEK, ARMANIAN,HEBREW (LADINO)..... D CIRCASSIAN, GEORGIAN, LAZ LANGUAGE..... E RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN..... F  ENGLISH, GERMAN, FRENCH..... G  OTHER _____ U (SPECIFY)  KNOWS NO OTHER LANGUAGE ... Y DON’T KNOW ..... X	TURKISH ..... A KURDSIH ..... B ARABIC ..... C GREEK, ARMANIAN,HEBREW (LADINO)..... D CIRCASSIAN, GEORGIAN, LAZ LANGUAGE..... E RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN..... F  ENGLISH, GERMAN, FRENCH..... G  OTHER _____ U (SPECIFY)  KNOWS NO OTHER LANGUAGE . Y DON’T KNOW ..... X
59	What is (was) mother tonge of .....’s mother?  What is (was) mother tonge of .....’s father?  <i>USE CODES IN 57.</i>	MOTHER ..... <input type="text"/> <input type="text"/>  FATHER..... <input type="text"/> <input type="text"/>	MOTHER ..... <input type="text"/> <input type="text"/>  FATHER..... <input type="text"/> <input type="text"/>
59A		<i>IF THERE IS OTHER NEVER MARRIED WOMAN IN THE HOUSEHOLD, RETURN 52. SKIP NEXT SECTION OTHERWISE.</i>	<i>IF THERE IS OTHER NEVER MARRIED WOMAN IN THE HOUSEHOLD, RETURN 52OF 1<sup>ST</sup> COLUMN IN ADDITIONAL FORM. SKIP NEXT SECTION OTHERWISE</i>

## SECTION 2. WELFARE OF ELDERLY

<b>60</b>	<p><i>CHECK QUESTION 48.</i></p> <p>THERE IS RECORDED AT LEAST ONE PERSON <input style="width: 30px; height: 20px; vertical-align: middle;" type="checkbox"/></p>				<p>NOBODY IS RECORDED <input style="width: 30px; height: 20px; vertical-align: middle;" type="checkbox"/> → 120</p>
<b>61</b>	<p>TOTAL NUMBER OF ELDERLY PERSONS IN THE HOUSEHOLD LIST..... <input style="width: 40px; height: 25px; vertical-align: middle;" type="text"/></p>				

*ENTER THE NAME AND LINE NUMBER OF EACH PERSON 60 AND OVER LISTED IN THE HOUSEHOLD SCHEDULE. ASK QUESTIONS ABOUT EACH OF THE LISTED PERSONS SEPARATELY. BEGIN WITH THE FIRST ELDERLY ON THE HOUSEHOLD LIST. IF THERE ARE MORE THAN 2 ELDERLY, USE ADDITIONAL QUESTIONNAIRE..*

	FROM QUESTION 02	NAME _____	NAME _____	
	FROM QUESTION 01	LINE NO ..... <input style="width: 30px; height: 20px; vertical-align: middle;" type="text"/>	LINE NO ..... <input style="width: 30px; height: 20px; vertical-align: middle;" type="text"/>	
<b>62</b>	<p>Does ..... have any living children?</p> <p><i>(IF YES) How many?</i></p>	<p>NO LIVING CHILD.....00 → 64</p> <p>NO. OF CHILDREN ..... <input style="width: 30px; height: 20px; vertical-align: middle;" type="text"/></p>	<p>NO LIVING CHILD..... 00 → 64</p> <p>NO. OF CHILDREN ..... <input style="width: 30px; height: 20px; vertical-align: middle;" type="text"/></p>	
<b>63</b>	<p>Where do.....'s own children live of his/her own?</p> <p><i>IF NECESSARY MATCH MORE THAN ONE CHOICE FOR ALL CHILDREN.</i></p>	<p>SAME HOUSE..... A</p> <p>SAME BUILDING/STREET OR QUARTER..... B</p> <p>SAME CITY/VILLAGE..... C</p> <p>CLOSE CITY/VILLAGE..... D</p> <p>DISTANT CITY/VILLAGE..... E</p> <p>OTHER COUNTRY..... F</p> <p>DK..... X</p>	<p>SAME HOUSE..... A</p> <p>SAME BUILDING/STREET OR QUARTER..... B</p> <p>SAME CITY/VILLAGE..... C</p> <p>CLOSE CITY/VILLAGE..... D</p> <p>DISTANT CITY/VILLAGE..... E</p> <p>OTHER COUNTRY..... F</p> <p>DK..... X</p>	
<b>64</b>	<p>Does ..... have any living step children?</p> <p><i>IF YES: How many?</i></p>	<p>NO LIVING STEP CHILD.....00 → 66</p> <p>NO. OF STEP CHILDREN ..... <input style="width: 30px; height: 20px; vertical-align: middle;" type="text"/></p>	<p>NO LIVING STEP CHILD ..... 00 → 66</p> <p>NO OF STEP CHILDREN ..... <input style="width: 30px; height: 20px; vertical-align: middle;" type="text"/></p>	
<b>65</b>	<p>Where do.....'s step children live?</p> <p><i>IF NECESSARY code MORE THAN ONE.</i></p>	<p>SAME HOUSE..... A</p> <p>SAME BUILDING, STREET OR QUARTER..... B</p> <p>SAME CITY, VILLAGE..... C</p> <p>CLOSE CITY, VILLAGE..... D</p> <p>DISTANT CITY, VILLAGE..... E</p> <p>OTHER COUNTRY..... F</p> <p>DK..... X</p>	<p>SAME HOUSE..... A</p> <p>SAME BUILDING, STREET OR QUARTER..... B</p> <p>SAME CITY, VILLAGE..... C</p> <p>CLOSE CITY, VILLAGE..... D</p> <p>DISTANT CITY, VILLAGE..... E</p> <p>OTHER COUNTRY..... F</p> <p>DK..... X</p>	
<b>66</b>	<p>Who takes the main responsibility for ..... 's needs, health and welfare?</p>	<p>HIMSELF/HERSELF..... 01</p> <p>SPOUSE..... 02</p> <p>CHILDREN/STEP CHILD..... 03</p> <p>CHILDREN IN LAW..... 04</p> <p>SIBLING..... 05</p> <p>GRANDCHILD..... 06</p> <p>SIBLING'S CHILD..... 07</p> <p>OTHER CLOSE RELATIVE..... 08</p> <p>DISTANT RELATIVE..... 09</p> <p>NEIGHBOUR..... 10</p> <p>OTHER _____ 96 (SPECIFY)</p>	<p>HIMSELF/HERSELF..... 01</p> <p>SPOUSE..... 02</p> <p>CHILDREN/STEP CHILD..... 03</p> <p>CHILDREN IN LAW..... 04</p> <p>SIBLING..... 05</p> <p>GRANDCHILD..... 06</p> <p>SIBLING'S CHILD..... 07</p> <p>OTHER CLOSE RELATIVE..... 08</p> <p>DISTANT RELATIVE..... 09</p> <p>NEIGHBOUR..... 10</p> <p>OTHER _____ 96 (SPECIFY)</p>	

	FROM QUESTION 02	NAME _____		NAME _____																																																													
	FROM QUESTION 01	LINE NO ..... <input type="text"/> <input type="text"/>		LINE NO ..... <input type="text"/> <input type="text"/>																																																													
<b>67</b>	Does ..... have any income?	YES ..... 1 NO ..... 2 → 69		YES ..... 1 NO ..... 2 → 69																																																													
<b>68</b>	What are the source(s) of this income?  RECORD ALL MENTIONED RESPONSES. AT LEAST ONE RECORD IS COMPULSORY.	PENSION (SELF)..... A PENSION (INDIRECT)..... B OLD AGE PENSION..... C RENT/INTEREST..... D FROM RELATIVE HERE..... E FROM RELATIVE ABROAD..... F CURRENTLY WORKING..... G  OTHER _____ U (SPECIFY)		PENSION (SELF)..... A PENSION (INDIRECT)..... B OLD AGE PENSION..... C RENT/INTEREST..... D FROM RELATIVE HERE..... E FROM RELATIVE ABROAD..... F CURRENTLY WORKING..... G  OTHER _____ U (SPECIFY)																																																													
<b>69</b>	Is ..... covered by a health insurance? Does he/she has health insurance?  (IF YES) Which one?	NO ..... 0 SSK ..... 1 EMEKLİ SANDIĞI ..... 2 BAĞ-KUR ..... 3 PRIVATE..... 4 YEŞİL CARD ..... 5  OTHER _____ 7 (SPECIFY) DK ..... 8		NO ..... 0 SSK ..... 1 EMEKLİ SANDIĞI ..... 2 BAĞ-KUR ..... 3 PRIVATE..... 4 YEŞİL CARD ..... 5  OTHER _____ 7 (SPECIFY) DK ..... 8																																																													
<b>70</b>	Is ..... confined to bed?	YES ..... 1 → 73 NO ..... 2		YES ..... 1 → 73 NO ..... 2																																																													
<b>71</b>	Is ..... confined to chair/armchair all day long?	YES ..... 1 → 73 NO ..... 2		YES ..... 1 → 73 NO ..... 2																																																													
<b>72</b>	Is .....’s daily life limited to house/flat or garden?	YES ..... 1 NO ..... 2		YES ..... 1 NO ..... 2																																																													
<b>73</b>	Does ..... do the things I will list now easily, with difficulty or only with the assistance of another person?	<table border="0"> <thead> <tr> <th></th> <th>WITH EASY</th> <th>WITH DIFF.</th> <th>WITH ASSISTANCE</th> <th>IMPOSSIBLE</th> </tr> </thead> <tbody> <tr> <td>Lying on bed-rising from bed</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Dressing-undressing</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Eating</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Going to and using toilet</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Taking a bath</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </tbody> </table>		WITH EASY	WITH DIFF.	WITH ASSISTANCE	IMPOSSIBLE	Lying on bed-rising from bed	1	2	3	4	Dressing-undressing	1	2	3	4	Eating	1	2	3	4	Going to and using toilet	1	2	3	4	Taking a bath	1	2	3	4		<table border="0"> <thead> <tr> <th></th> <th>WITH EASY</th> <th>WITH DIFF.</th> <th>WITH ASSISTANCE</th> <th>IMPOSSIBLE</th> </tr> </thead> <tbody> <tr> <td>Lying on bed-rising from bed</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Dressing-undressing</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Eating</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Going to and using toilet</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Taking a bath</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </tbody> </table>		WITH EASY	WITH DIFF.	WITH ASSISTANCE	IMPOSSIBLE	Lying on bed-rising from bed	1	2	3	4	Dressing-undressing	1	2	3	4	Eating	1	2	3	4	Going to and using toilet	1	2	3	4	Taking a bath	1	2	3	4	
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		IF THERE IS ANOTHER ELDERLY IN THE HOUSE RETURN TO QUESTION 62; OTHERWISE, SKIP TO NEXT SECTION		IF THERE IS ANOTHER ELDERLY PASS THE QUESTION 62 IN FIRST COLUMN IN ADDITIONAL QUESTIONNAIRE; OTHERWISE, SKIP TO NEXT SECTION																																																													

### SECTION 3. HOUSING CHARACTERISTICS

<b>120</b>	<p><i>CHECK COVER PAGE:</i></p> <p>NO USUAL RESIDENTS IN THIS HOUSE (TOTAL NUMBER OF USUAL RESIDENTS=00)</p> <div style="text-align: center;"><input style="width: 20px; height: 20px;" type="text"/></div>	<p>AT LEAST ONE USUAL RESIDENT LIVING IN THIS HOUSE (TOTAL NUMBER OF USUAL RESIDENTS&gt;00)</p> <div style="text-align: center;"><input style="width: 20px; height: 20px;" type="text"/></div>	<p>→ 123</p>
<b>122</b>	<p><i>ASK ALL QUESTIONS OF THIS SECTION FOR THE HOUSE/DWELLING THAT HOUSEHOLD HEAD USUALLY LIVES IN.</i></p> <p>Now I will ask some questions about the dwelling that ..... (HOUSEHOLD HEAD) usually lives in.</p>		
<b>123</b>	<p>Does this house belong to a household member, is it rented from someone else, is it a lodging, or do you just live here without having to pay anything?</p>	<p>OWNED BY A HOUSEHOLD MEMBER .....1 → 125</p> <p>RENTED .....2  </p> <p>LODGING .....3 → 125</p> <p>NO RENT PAID .....4 } → 124</p> <p>OTHER .....7 } (SPECIFY)</p>	
<b>123A</b>	<p>Do you have a tenancy agreement?</p>	<p>YES .....1</p> <p>NO .....2</p>	
<b>124</b>	<p>To whom does this house belong?</p>	<p>OTHER FAMILY MEMBER, RELATIVE .....1</p> <p>(NON-FAMILY MEMBER/NON-KIN) HOUSE OWNER.....2</p> <p>GOVERNMENT .....3</p> <p>PRIVATE ORGANISATION/FIRM.....4</p> <p>OTHER .....7 (SPECIFY)</p>	
<b>125</b>	<p>Does anyone from this household own any other house elsewhere? (<i>IF YES</i>) How many?</p>	<p>NO .....00</p> <p>NO. OF OWNED HOUSES ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/></p>	
<b>129</b>	<p>What is the source of drinking water for members of your household?</p>	<p>PIPED WATER</p> <p>  PIPED WATER IN HOUSE/GARDEN .....11 → 131</p> <p>  PUB. PIPED WATER OUTSIDE HOUSE/GARDEN .....12  </p> <p>WELL WATER</p> <p>  WELL IN HOUSE/GARDEN .....21 → 131</p> <p>  PUBLIC WELL.....22  </p> <p>SURFACE WATER</p> <p>  PIPED SURFACE WATER IN HOUSE/GARDEN .....31 → 131</p> <p>  SPRING/PUBLIC FOUNTAIN .....32  </p> <p>  RIVER/STREAM/POND/LAKE/DAM .....33  </p> <p>RAINWATER .....41 → 131</p> <p>TANKER TRUCK .....51  </p> <p>BOTTLED WATER/DEMI JOHN/PET WATER .....61 → 133</p> <p>WATER STATION.....71  </p> <p>OTHER .....96 (SPECIFY)</p>	



130	How long does it take you go there, get water, and come back?	MINUTE..... <input type="text"/> <input type="text"/> <input type="text"/> ON PREMISES .....996	
131	Is water always available at this source? How frequently is it available?	USUALLY/ALWAYS .....1 SEVERAL HOURS IN A DAY .....2 EVERY OTHER DAY .....3 A FEW TIMES IN A WEEK.....4 RARELY .....5 DK .....8	
132	Do you do anything before using drinking water? Such as boiling, filtering, etc...	NO .....0 WATER IS BOILED .....1 WATER IS CHLORINATED.....2 WATER IS FILTERED .....3 OTHER .....7 (SPECIFY) DK .....8	
133	What is the source of daily use water for hand washing, dishwashing, and laundry in this house?	PIPED WATER PIPED WATER IN HOUSE/GARDEN .....11 PUBLIC PIPED WATER OUTSIDE HOUSE/GARDEN..12 WELL WATER WELL IN HOUSE/GARDEN .....21 PUBLIC WELL.....22 SURFACE WATER PIPED SURFACE WATER IN HOUSE/GARDEN.....31 SPRING/WATER FOUNTAIN.....32 RIVER/STREAM/POND/LAKE/DAM .....33 RAINWATER .....41 TANKER TRUCK .....51 BOTTLED WATER/DEMI JOHN/PET WATER .....61 WATER STATION.....71 OTHER .....96 (SPECIFY)	
137	Is the toilet inside the house or outside?	NO FACILITY/BUSH/FIELD/PUBLIC TOILET .....0 → 142A INSIDE .....1 OUTSIDE .....2 INSIDE AND OUTSIDE .....3 OTHER .....7 (SPECIFY)	
138	What type of toilet system do you have in your household?  <i>IF MORE THAN ONE TOILET IS USED, RECORD ACCORDING TO THE ONE INSIDE OR CLOSEST TO THE HOUSE.</i>	FLUSH TOILET .....1 OPEN PIT.....2 CLOSED PIT .....3 OTHER .....7 (SPECIFY)	
139	Do only only the members of your household use the toilet or is it shared with other household(s)?	ONLY HOUSEHOLD MEMBERS .....1 WITH OTHER HOSEHOLD(S).....2	

142A	How many rooms are there in your house? Would you please include bedrooms, living rooms, sitting rooms and studying rooms?	NO OF ROOMS ..... <input type="text"/> <input type="text"/>	
142B	Is there a separate kitchen?	NO .....0 YES.....1	
142C	Is there a separate bathroom?	NO .....0 YES.....1	
142D	Except the rooms listed above, is there any other place such as pantry, and attic? (IF YES) What are they?  <i>RECORD THE TOTAL NUMBER OF SUCH PLACES.</i>	NO .....0  HOW MANY ..... <input type="text"/> <input type="text"/>	
142E	From all you listed, how many rooms in your house are generally used for sleeping?	ROOMS USED FOR SLEEPING ..... <input type="text"/> <input type="text"/>	
143	What is the main material of the floor?	NATURAL FLOOR EARTH.....11 RUDIMENTARY WOOD BLANKS .....21 FINISHED FLOOR PARQUET/POLISHED WOOD .....31 KARO.....32 CEMENT.....34 CARPET.....35 MARLEY .....36 MOZAIC .....37  OTHER _____ 96 (SPECIFY)	

144	Do you have the following in the household?	NO	YES	
	Refrigerator	REFRIGERATOR.....0	1	
	Gas or electric oven	GAS OR ELECTRIC OVEN.....0	1	
	Microwave oven	MICROWAVE OVEN.....0	1	
	Dishwasher	DISHWASHER.....0	1	
	Blender/Mixer	BLENDER/MIXER.....0	1	
	DVD/VCD Player	DVD/VCD PLAYER.....0	1	
	Washing Machine	WASHING MACHINE.....0	1	
	Video Camera	VIDEO CAMERA.....0	1	
	Iron	IRON.....0	1	
	Digiturk, CINE 5, Satellite Antenna etc.	DIGITURK, CINE5, SATELLITE ANTENNA.....0	1	
	Vacuum Cleaner	VACUUM CLEANER.....0	1	
	Air Conditioner	AIR CONDITIONER.....0	1	
	Television ( <i>IF YES</i> ) How many?	TELEVISION.....0	<input type="text"/>	
	Video	VIDEO.....0	1	
	Cable TV	CABLE TV.....0	1	
	Camera	CAMERA.....0	1	
	CD Player	CD PLAYER.....0	1	
	Telephone	TELEPHONE.....0	1	
	Cellular phone ( <i>IF YES</i> ) How many members have cellular phone?	CELLULAR PHONE.....0	<input type="text"/>	
	Computer	COMPUTER.....0	1	
	Internet	INTERNET.....0	1	
	Private Car ( <i>IF YES</i> ) How many?	PRIVATE CAR.....0	<input type="text"/>	
	Taxi/Minibus/Bus/commercial vehicles	TAXI/MINIBUS/BUS.....0	1	
	Tractor	TRACTOR.....0	1	
	Motorcycle	MOTORCYCLE.....0	1	
	Bicycle	BICYCLE.....0	1	
145	Does any member of this household have a credit card? ( <i>IF YES</i> ) How many members have credit cards?	NO.....0	<input type="text"/>	
146	I would like to get an estimate of the total income earned by the members of this household. Approximately, do the household members earn per month totally:			
146A	More than 450 million?	YES.....1	<input type="text"/>	146F
		NO.....2		
146B	More than 600 million?	YES.....1	<input type="text"/>	147
		NO.....2		
146C	More than 750 million?	YES.....1	<input type="text"/>	147
		NO.....2		
146D	More than 1 billion?	YES.....1	<input type="text"/>	147
		NO.....2		
146E	More than 3 billion?	YES.....1	<input type="text"/>	147
		NO.....2		
146F	Less than 300 million?	YES.....1	<input type="text"/>	147
		NO.....2		
146G	Less than 150 million?	YES.....1		
		NO.....2		

## İSTANBUL METROPOLITAN HOUSEHOLD MODULE

<b>147</b>	<p><i>CHECK COVER PAGE:</i></p> <p>İSTANBUL METROPOLITAN HOUSEHOLD (1) <input type="checkbox"/></p> <p style="text-align: center;">↓</p>	<p>NOT İSTANBUL METROPOLITAN HOUSEHOLD (2) <input type="checkbox"/> → 160</p>
<b>147A</b>	<p><i>CHECK COVER PAGE:</i></p> <p>THERE IS AT LEAST ONE PERSON USUALLY LIVING IN THIS HOUSE <input type="checkbox"/></p> <p style="text-align: center;">↓</p>	<p>NOBODY IS USUALLY LIVING IN THIS HOUSE <input type="checkbox"/> → 160</p>
<b>148</b>	<p><i>CHECK QUESTION 123:</i></p> <p>IF IT IS NOT A LODGING (123 = 1, 2, 4 OR 7) <input type="checkbox"/></p> <p style="text-align: center;">↓</p>	<p>IF LODGING (123=3) <input type="checkbox"/> → 165</p>
<b>149</b>	<p>Does this house have formal title deeds?</p>	<p>YES.....1 → 153</p> <p>NO .....2</p> <p>DK .....8</p>
<b>150</b>	<p>Does this house have allotment document for title deeds?</p>	<p>YES.....1 → 153</p> <p>NO .....2</p> <p>DK .....8</p>
<b>151</b>	<p>Does the land that this house was built on have formal title deeds?</p>	<p>YES.....1 → 153</p> <p>NO .....2</p> <p>DK .....8</p>
<b>152</b>	<p>Except than I asked, is there any other formal document of this house or the land that this house was built on given by government or municipality? (IF YES) What kind of a document is it?</p>	<p>NO.....0</p> <p>YES .....1</p> <p style="text-align: center;">(SPECIFY)</p> <p>DK .....8</p>
<b>153</b>	<p>Do you think that you may be evicted from this dwelling without due legal process? (IF YES) By whom?</p>	<p>IMPOSSIBLE.....0</p> <p>POSSIBLE</p> <p style="padding-left: 20px;">HOUSE OWNER.....1</p> <p style="padding-left: 20px;">GOVERNMENT/MUNICIPALITY.....2</p> <p style="padding-left: 20px;">OTHER .....7</p> <p style="text-align: center;">(SPECIFY)</p> <p>DK .....8</p>
<b>154</b>	<p>Do you pay environment and garbage tax?</p>	<p>YES.....1</p> <p>NO .....2</p> <p>DK .....8</p>

155	Have you contracted for electricity?	YES.....1 NO .....2 DK .....8	
156	Have you contracted with İSKİ?	YES.....1 NO .....2 DK .....8	
157	Have you contracted for natural gas?	YES.....1 NO .....2 DK .....8	

**SALT IODIZATION**

160	<p><i>CHECK COVER PAGE:</i></p> <p align="center">CLUSTER NO IS EVEN, AND HH NO IS ODD OR CLUSTER NO IS ODD, AND HH NO IS EVEN</p>		161
	<p>CLUSTER NO IS EVEN AND HH NO IS EVEN <input type="checkbox"/></p>	<p>CLUSTER NO IS ODD AND HH NO IS ODD <input type="checkbox"/></p>	
160A	<p>I want to ask questions about the salt that you use in cooking in your house.</p> <p>In what kind of pot do you preserve the salt that you use in cooking?</p> <p><i>ASK FOR THE POT OR THE PACKAGE THAT IS USED IN PRESERVING SALT. IF BOTH OF THEM IS AVAILABLE, RECODE BY TAKING THE POT AS THE BASE.</i></p>	<p>ITS OWN PACKAGE</p> <p>OPEN.....11 CLOSED .....12</p> <p>TRANSPARENT POT</p> <p>HAS TAP .....21 DOES NOT HAVE TAP .....22</p> <p>UNTRANSPARENT COLOURED POT</p> <p>HAS TAP .....31 DOES NOT HAVE TAP .....32</p> <p>SALT IS NOT USED IN THE HOUSE .....41</p> <p>OTHER _____ 96 (SPECIFY)</p>	161

<p><b>160B</b></p>	<p><i>IF SALT IS IN ITS OWN PACKAGE, LOOK FOR WHETHER SALT IS “POTASIMUM IODURE” OR “POTASIMUM IODADE” AND RECORD.</i></p>	<p>INFORMATION ON THE PACKAGE</p> <p>POTASIMUM IODURE .....1</p> <p>POTASIMUM IODADE .....2</p> <p>NO INFORMATION .....3</p> <p>PACKAGE WAS NOT SEEN .....4</p>	
<p><b>160C</b></p>	<p><i>IF SALT IS PRESERVED IN A POT:</i> Where do you usually preserve salt pot?</p> <p><i>IF SALT IS PRESERVED IN ITS OWN PACKAGE:</i> Where do you usually preserve salt package?</p>	<p>OPEN PLACE .....1</p> <p>CLOSED CLOSET .....2</p>	
<p><b>160D</b></p>	<p>Now I want to test whether the salt that you use in your house is iodized or not..</p> <p><i>IF BOTH PRESERVING POT AND PACKAGE IS AVAILIABLE, APPLY POTASIMUM IODURE TEST AND RECORD BY TAKING SAMPLE FROM PRESERVING POT.</i></p> <p><i>IF SALT DOES NOT CONTAIN POTASIMUM IODURE, ALSO APPLY POTASIMUM IODADE TES AND RECORD..</i></p>	<p>POTASIMUM IODURE TEST</p> <p>NOT IODIZED - 0 PPM (NO COLOUR).....11</p> <p>IODIZED (HAS COLOUR) .....12 →</p> <p>POTASIMUM IODADE TEST</p> <p>NOT IODIZED - 0 PPM (NO COLOUR).....21</p> <p>LESS THAN 15 PPM (LIGHT COLOUR).....22</p> <p>15 PPM OR MORE (DARK COLOUR).....23</p> <p>NOT TESTED _____00</p> <p>(SPECIFY)</p>	<p>161</p>

161	LINE NO. OF THE RESPONDENT IN THE HOUSEHOLD SCHEDULE	HOUSEHOLD LINE NO ..... <input type="text"/> <input type="text"/>	
162	LANGUAGE(S) USED FOR CONDUCTING THE HOUSEHOLD QUESTIONNAIRE	TURKISH..... A → 164S KURDISH ..... B ARABIC ..... C OTHER _____ U (SPECIFY)	
163	WAS AN INTERPRETER USED?	YES..... 1 NO ..... 2	
164S	RECORD THE TIME	HOUR..... <input type="text"/> <input type="text"/> MINUTE..... <input type="text"/> <input type="text"/>	

**PROVINCE TRAFFIC CODES**

01 ADANA	21 DİYARBAKIR	41 KOCAELİ	61 TRABZON
02 ADIYAMAN	22 EDİRNE	42 KONYA	62 TUNCELİ
03 AFYON	23 ELAZIĞ	43 KÜTAHYA	63 ŞANLIURFA
04 AĞRI	24 ERZİNCAN	44 MALATYA	64 UŞAK
05 AMASYA	25 ERZURUM	45 MANİSA	65 VAN
06 ANKARA	26 ESKİŞEHİR	46 K.MARAŞ	66 YOZGAT
07 ANTALYA	27 GAZİANTEP	47 MARDİN	67 ZONGULDAK
08 ARTVİN	28 GİRESUN	48 MUĞLA	68 AKSARAY
09 AYDIN	29 GÜMÜŞHANE	49 MUŞ	69 BAYBURT
10 BALIKESİR	30 HAKKARİ	50 NEVŞEHİR	70 KARAMAN
11 BİLECİK	31 HATAY	51 NİĞDE	71 KIRIKKALE
12 BİNGÖL	32 ISPARTA	52 ORDU	72 BATMAN
13 BİTLİS	33 İÇEL	53 RİZE	73 ŞIRNAK
14 BOLU	34 İSTANBUL	54 SAKARYA	74 BARTIN
15 BURDUR	35 İZMİR	55 SAMSUN	75 ARDAHAN
16 BURSA	36 KARS	56 SİİRT	76 IĞDIR
17 ÇANAKKALE	37 KASTAMONU	57 SİNOP	77 YALOVA
18 ÇANKIRI	38 KAYSERİ	58 SIVAS	78 KARABÜK
19 ÇORUM	39 KIRKLARELİ	59 TEKİRDAĞ	79 KİLİS
20 DENİZLİ	40 KIRŞEHİR	60 TOKAT	80 OSMANİYE
90 ABROAD			81 DÜZCE

CONVERSION OF YEARS OF BIRTH FROM RUMI  
CALENDAR TO GREGORIAN CALENDAR YEARS:

RUMI YEARS + 584 = GREGORIAN YEAR



**AGE - YEAR OF BIRTH TABLE**

<b>2003</b>		
<b>AGE</b>	<b>YEAR OF BIRTH</b>	
	<b>HAS NOT HAD BIRTHDAY IN 2003</b>	<b>HAS ALREADY HAD BIRTHDAY IN 2003</b>
	<b>DOES NOT KNOW</b>	
0	2002	--
1	2001	2002
2	2000	2001
3	1999	2000
4	1998	1999
5	1997	1998
6	1996	1997
7	1995	1996
8	1994	1995
9	1993	1994
10	1992	1993
11	1991	1992
12	1990	1991
13	1989	1990
14	1988	1989
15	1987	1988
16	1986	1987
17	1985	1986
18	1984	1985
19	1983	1984
20	1982	1983
21	1981	1982
22	1980	1981
23	1979	1980
24	1978	1979
25	1977	1978
26	1976	1977
27	1975	1976
28	1974	1975
29	1973	1974
30	1972	1973
31	1971	1972
32	1970	1971
33	1969	1970
34	1968	1969
35	1967	1968
36	1966	1967
37	1965	1966
38	1964	1965
39	1963	1964
40	1962	1963
41	1961	1962
42	1960	1961
43	1959	1960
44	1958	1959
45	1957	1958
46	1956	1957
47	1955	1956
48	1954	1955
49	1953	1954
50	1952	1953
51	1951	1952
52	1950	1951
53	1949	1950
54	1948	1949
55	1947	1948
56	1946	1947
57	1945	1946
58	1944	1945
59	1943	1944
60	1942	1943
61	1941	1942
62	1940	1941
63	1939	1940
64	1938	1939
65	1937	1938
66	1936	1937
67	1935	1936
68	1934	1935
69	1933	1934

<b>2004</b>		
<b>AGE</b>	<b>YEAR OF BIRTH</b>	
	<b>HAS NOT HAD BIRTHDAY IN 2004</b>	<b>HAS ALREADY HAD BIRTHDAY IN 2004</b>
	<b>DOES NOT KNOW</b>	
0	2003	--
1	2002	2003
2	2001	2002
3	2000	2001
4	1999	2000
5	1998	1999
6	1997	1998
7	1996	1997
8	1995	1996
9	1994	1995
10	1993	1994
11	1992	1993
12	1991	1992
13	1990	1991
14	1989	1990
15	1988	1989
16	1987	1988
17	1986	1987
18	1985	1986
19	1984	1985
20	1983	1984
21	1982	1983
22	1981	1982
23	1980	1981
24	1979	1980
25	1978	1979
26	1977	1978
27	1976	1977
28	1975	1976
29	1974	1975
30	1973	1974
31	1972	1973
32	1971	1972
33	1970	1971
34	1969	1970
35	1968	1969
36	1967	1968
37	1966	1967
38	1965	1966
39	1964	1965
40	1963	1964
41	1962	1963
42	1961	1962
43	1960	1961
44	1959	1960
45	1958	1959
46	1957	1958
47	1956	1957
48	1955	1956
49	1954	1955
50	1953	1954
51	1952	1953
52	1951	1952
53	1950	1951
54	1949	1950
55	1948	1949
56	1947	1948
57	1946	1947
58	1945	1946
59	1944	1945
60	1943	1944
61	1942	1943
62	1941	1942
63	1940	1941
64	1939	1940
65	1938	1939
66	1937	1938
67	1936	1937
68	1935	1936
69	1934	1935

**HACETTEPE UNIVERSITY INSTITUTE OF POPULATION STUDIES**  
**2003 TURKISH DEMOGRAPHIC AND HEALTH SURVEY**  
**EVER-MARRIED WOMEN'S QUESTIONNAIRE**

IDENTIFICATION	
CLUSTER NO ..... <input style="width: 40px;" type="text"/>	PROVINCE _____ <input style="width: 40px;" type="text"/>
HOUSEHOLD NO ..... <input style="width: 40px;" type="text"/>	DISTRICT _____ <input style="width: 40px;" type="text"/>
5 REGION ..... <input style="width: 40px;" type="text"/>	SUB-DISTRICT _____ <input style="width: 40px;" type="text"/>
12 REGION ..... <input style="width: 40px;" type="text"/>	VILLAGE _____ <input style="width: 40px;" type="text"/>
PLACE OF RESIDENCE URBAN (1) RURAL (2)..... <input style="width: 40px;" type="text"/>	QUARTER _____
	STREET _____ NO _____

NAME-SURNAME OF WOMAN _____	LINE NUMBER OF WOMAN .....	<input style="width: 40px;" type="text"/>
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IF CURRENTLY MARRIED NAME-SURNAME OF HUSBAND _____	LINE NUMBER OF HUSBAND.....	<input style="width: 40px;" type="text"/>
---	-----------------------------	---

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE (DAY-MONTH)	___ ___	___ ___	___ ___	<input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/>
INTERVIEWER'S NAME-SURNAME	_____	_____	_____	<input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/>
RESULT (*)	___	___	___	<input style="width: 40px;" type="text"/>
NEXT DAY-MONTH VISIT HOUR	___ ___ ___ ___	___ ___ ___ ___		TOTAL NO OF VISITS <input style="width: 40px;" type="text"/>

(*) RESULT CODES	
01 COMPLETED	05 REFUSED
02 WOMAN IS NOT AT HOME DURING VISITS	09 PARTLY COMPLETED
03 WOMAN IS NOT AT HOME DURING SURVEY DATE	96 OTHER _____
04 POSTPONED	(SPECIFY)

SUPERVISOR	FIELD EDITOR	KEYER
_____ <input style="width: 40px;" type="text"/>	_____ <input style="width: 40px;" type="text"/>	_____ <input style="width: 40px;" type="text"/>
DAY-MONTH <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/>	DAY-MONTH <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/>	DAY-MONTH <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/>

**AGE - YEAR OF BIRTH TABLE**

<b>2003</b>		
<b>AGE</b>	<b>YEAR OF BIRTH</b>	
	<b>HAS NOT HAD BIRTHDAY IN 2003</b>	<b>HAS ALREADY HAD BIRTHDAY IN 2003</b>
	<b>DOES NOT KNOW</b>	
0	2002	--
1	2001	2002
2	2000	2001
3	1999	2000
4	1998	1999
5	1997	1998
6	1996	1997
7	1995	1996
8	1994	1995
9	1993	1994
10	1992	1993
11	1991	1992
12	1990	1991
13	1989	1990
14	1988	1989
15	1987	1988
16	1986	1987
17	1985	1986
18	1984	1985
19	1983	1984
20	1982	1983
21	1981	1982
22	1980	1981
23	1979	1980
24	1978	1979
25	1977	1978
26	1976	1977
27	1975	1976
28	1974	1975
29	1973	1974
30	1972	1973
31	1971	1972
32	1970	1971
33	1969	1970
34	1968	1969
35	1967	1968
36	1966	1967
37	1965	1966
38	1964	1965
39	1963	1964
40	1962	1963
41	1961	1962
42	1960	1961
43	1959	1960
44	1958	1959
45	1957	1958
46	1956	1957
47	1955	1956
48	1954	1955
49	1953	1954
50	1952	1953
51	1951	1952
52	1950	1951
53	1949	1950
54	1948	1949
55	1947	1948
56	1946	1947
57	1945	1946
58	1944	1945
59	1943	1944
60	1942	1943
61	1941	1942
62	1940	1941
63	1939	1940
64	1938	1939
65	1937	1938
66	1936	1937
67	1935	1936
68	1934	1935
69	1933	1934

<b>2004</b>		
<b>AGE</b>	<b>YEAR OF BIRTH</b>	
	<b>HAS NOT HAD BIRTHDAY IN 2004</b>	<b>HAS ALREADY HAD BIRTHDAY IN 2004</b>
	<b>DOES NOT KNOW</b>	
0	2003	--
1	2002	2003
2	2001	2002
3	2000	2001
4	1999	2000
5	1998	1999
6	1997	1998
7	1996	1997
8	1995	1996
9	1994	1995
10	1993	1994
11	1992	1993
12	1991	1992
13	1990	1991
14	1989	1990
15	1988	1989
16	1987	1988
17	1986	1987
18	1985	1986
19	1984	1985
20	1983	1984
21	1982	1983
22	1981	1982
23	1980	1981
24	1979	1980
25	1978	1979
26	1977	1978
27	1976	1977
28	1975	1976
29	1974	1975
30	1973	1974
31	1972	1973
32	1971	1972
33	1970	1971
34	1969	1970
35	1968	1969
36	1967	1968
37	1966	1967
38	1965	1966
39	1964	1965
40	1963	1964
41	1962	1963
42	1961	1962
43	1960	1961
44	1959	1960
45	1958	1959
46	1957	1958
47	1956	1957
48	1955	1956
49	1954	1955
50	1953	1954
51	1952	1953
52	1951	1952
53	1950	1951
54	1949	1950
55	1948	1949
56	1947	1948
57	1946	1947
58	1945	1946
59	1944	1945
60	1943	1944
61	1942	1943
62	1941	1942
63	1940	1941
64	1939	1940
65	1938	1939
66	1937	1938
67	1936	1937
68	1935	1936
69	1934	1935

## SECTION 1. RESPONDENT'S BACKGROUND

<b>101</b>	<i>RECORD THE TIME</i>	HOUR-MINUTE..... <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	
<b>105</b>	First I would like to ask some questions about you and the place you live in.  In what year and month were you born?	MONTH..... <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>  DOESN'T KNOW MONTH.....98  YEAR ..... <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> DOESN'T KNOW YEAR.....9998	
<b>106</b>	How old are you exactly? What age have you completed?  <i>CHECK ANSWERS TO 105 AND 106 USING AGE-BIRTH YEAR TABLE. IF INCONSISTENT PROBE AND CORRECT.</i>  <u>AGE MUST BE DETERMINED!</u>	AGE IN COMPLETED YEARS ..... <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	
<b>107</b>	Have you ever attended school?	YES.....1 NO.....2	→ 114
<b>108</b>	What is the highest level you have attended?	PRIMARY SCHOOL.....1 SECONDARY SCHOOL.....2 PRIMARY EDUCATION .....3 HIGH SCHOOL .....4 UNIVERSITY .....5 GRADUATE .....6	
<b>109A</b>	What is the highest grade you have completed at that level?  <i>RECORD "0" IF THE RESPONDENT COMPLETED PREPARATORY CLASS OR SHE DID NOT COMPLETE ANY GRADE.</i>	GRADE ..... <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	
<b>109B</b>	Did you graduate (receive diploma) from this school?	YES.....1 NO.....2	
<b>113</b>	<i>CHECK 108 AND 109A:</i>  ATTENDED SCHOOL FOR 5 OR LESS YEARS <input style="width: 20px; height: 20px; border: 1px solid black;" type="checkbox"/>	ATTENDED SCHOOL FOR 6 OR MORE YEARS <input style="width: 20px; height: 20px; border: 1px solid black;" type="checkbox"/>	→ 115A
<b>114</b>	Can you read and understand a letter or newspaper easily, with difficulty, or not at all?	NOT AT ALL.....0 WITH DIFFICULTY .....1 EASILY .....2	→ 115B
<b>115A</b>	How frequently do you read a newspaper?	NEVER.....0 RARELY/SELDOM .....1 ONCE-TWICE A WEEK.....2 EVERY DAY/ALMOST EVERY DAY .....3	

115B	Except for formal education; Have you ever attended a literacy course? Have you ever attended Koran course? Have you taken any other religious education? Have you ever attended any foreign language course(s)? Have you ever attended computer course? Have you ever attended typewriting course? Have you ever attended any occupation/skill training course?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;">YES</th> <th style="width: 25%; text-align: center;">NO</th> </tr> </thead> <tbody> <tr> <td>Have you ever attended a literacy course?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Have you ever attended Koran course?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Have you taken any other religious education?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Have you ever attended any foreign language course(s)?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Have you ever attended computer course?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Have you ever attended typewriting course?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Have you ever attended any occupation/skill training course?</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		YES	NO	Have you ever attended a literacy course?	1	2	Have you ever attended Koran course?	1	2	Have you taken any other religious education?	1	2	Have you ever attended any foreign language course(s)?	1	2	Have you ever attended computer course?	1	2	Have you ever attended typewriting course?	1	2	Have you ever attended any occupation/skill training course?	1	2	
	YES	NO																									
Have you ever attended a literacy course?	1	2																									
Have you ever attended Koran course?	1	2																									
Have you taken any other religious education?	1	2																									
Have you ever attended any foreign language course(s)?	1	2																									
Have you ever attended computer course?	1	2																									
Have you ever attended typewriting course?	1	2																									
Have you ever attended any occupation/skill training course?	1	2																									
115D	Have you ever smoked cigarettes or do you currently smoke? (IF YES) How frequent?	NEVER SMOKED ..... 1 TRIED ONCE OR TWICE ..... 2 RARELY SMOKES ..... 3 SMOKES REGULARLY/ADDICTED ..... 4 SMOKED IN THE PAST/GAVE UP ..... 5	115G																								
115E	When did you begin smoking cigarettes?	AGE OF BEGINNING TO SMOKE..... <input style="width: 40px; height: 20px;" type="text"/>																									
115F	What is the average number of cigarettes do (did) you smoke in a day?	AVERAGE NUMBER OF CIGARETTES..... <input style="width: 40px; height: 20px;" type="text"/>																									
115G	Is there anybody smoking cigarettes at home (except for you)?	YES ..... 1 NO ..... 2	115I																								
115H	CHECK 115D:  THE WOMAN INTERVIEWED SMOKES RARELY OR REGULARLY (115D=3 OR 4) <input style="width: 20px; height: 20px;" type="checkbox"/>	THE WOMAN INTERVIEWED HAS NEVER SMOKED, TRIED ONCE OR TWICE OR GIVEN UP <input style="width: 20px; height: 20px;" type="checkbox"/>	116A																								
115I	Are cigarettes smoked in your house in the following situations? In the living room when watching TV (IF YES): Sometimes or usually?  Around the table after meal? (IF YES): Sometimes or usually?  In the room(s) used for sleeping? (IF YES): Sometimes or usually?	<table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>NO, NEVER .....</td> <td style="text-align: right;">0</td> </tr> <tr> <td>YES, USUALLY .....</td> <td style="text-align: right;">1</td> </tr> <tr> <td>YES, SOMETIMES .....</td> <td style="text-align: right;">2</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td>NO, NEVER .....</td> <td style="text-align: right;">0</td> </tr> <tr> <td>YES, USUALLY .....</td> <td style="text-align: right;">1</td> </tr> <tr> <td>YES, SOMETIMES .....</td> <td style="text-align: right;">2</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td>NO, NEVER .....</td> <td style="text-align: right;">0</td> </tr> <tr> <td>YES, USUALLY .....</td> <td style="text-align: right;">1</td> </tr> <tr> <td>YES, SOMETIMES .....</td> <td style="text-align: right;">2</td> </tr> </tbody> </table>	NO, NEVER .....	0	YES, USUALLY .....	1	YES, SOMETIMES .....	2			NO, NEVER .....	0	YES, USUALLY .....	1	YES, SOMETIMES .....	2			NO, NEVER .....	0	YES, USUALLY .....	1	YES, SOMETIMES .....	2			
NO, NEVER .....	0																										
YES, USUALLY .....	1																										
YES, SOMETIMES .....	2																										
NO, NEVER .....	0																										
YES, USUALLY .....	1																										
YES, SOMETIMES .....	2																										
NO, NEVER .....	0																										
YES, USUALLY .....	1																										
YES, SOMETIMES .....	2																										
116A	What is your mother tongue?  RECORD ONLY ONE RESPONSE.	TURKISH ..... 01 KURDISH ..... 02 ARABIC ..... 03 GREEK, ARMANIAN, HEBREW (LADINO) ..... 04 CIRCASSIAN, GEORGIAN, LAZ LANGUAGE ..... 05 RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN ..... 06 ENGLISH, GERMAN, FRENCH ..... 07  OTHER _____ 96 (SPECIFY)																									

116B	<p>In addition to your mother tongue, which language(s) can you speak?</p> <p><i>RECORD ALL MENTIONED.</i></p>	<p>TURKISH ..... A  KURDISH ..... B  ARABIC ..... C  GREEK, ARMANIAN, HEBREW (LADINO) ..... D  CIRCASSIAN, GEORGIAN, LAZ LANGUAGE ..... E  RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN ..... F  ENGLISH, GERMAN, FRENCH ..... G    OTHER ..... U  (SPECIFY)    KNOWS NO OTHER LANGUAGE ..... Y</p>	
116C	<p>What is (was) your mother's mother tongue?</p> <p>What is (was) your father's mother tongue?</p> <p><i>USE THE CODES IN 116A.</i></p>	<p>MOTHER ..... <input type="text"/> <input type="text"/></p> <p>FATHER ..... <input type="text"/> <input type="text"/></p>	
117A	Is (was) your mother literate?	<p>YES ..... 1  NO ..... 2</p>	
117B	<p>Did your mother ever attend to school?  <i>(IF YES) Which school did she complete?</i></p>	<p>DID NOT ATTEND TO SCHOOL ..... 0  ATTENDED TO PRIMARY SCHOOL, DID NOT FINISH ..... 1  PRIMARY SCHOOL GRADUATE ..... 2  SECONDARY SCHOOL GRADUATE ..... 3  HIGH SCHOOL GRADUATE ..... 4  UNIVERSITY GRADUATE/GRADUATE EDUCATION ..... 5  DON'T KNOW ..... 8</p>	
117C	<p>How many children born to your mother are alive today, including yourself?  How many of them are male, how many of them are female?</p>	<p>NUMBER OF MALE CHILDREN ALIVE ..... <input type="text"/> <input type="text"/></p> <p>NUMBER OF FEMALE CHILDREN ALIVE ..... <input type="text"/> <input type="text"/></p> <p>TOTAL NUMBER OF LIVING CHILDREN ..... <input type="text"/> <input type="text"/></p>	
117D	<p>Did she have any other male or female births, who died later?  <i>(IF NO) He/she could die just after the birth or when he/she was a young baby.</i></p>	<p>YES ..... 1  NO ..... 2</p>	117F
117E	How many of them were male, how many of them were female?	<p>DON'T KNOW ..... 98</p> <p>NUMBER OF DECEASED MALE CHILDREN ..... <input type="text"/> <input type="text"/></p> <p>NUMBER OF DECEASEDAD FEMALE CHILDREN ..... <input type="text"/> <input type="text"/></p> <p>SEX UNKNOWN ..... <input type="text"/> <input type="text"/></p>	
117F	Is (was) your father literate?	<p>NO ..... 1  YES ..... 2</p>	
117G	<p>Did your father ever attend school?  <i>(IF YES) Which school did he complete?</i></p>	<p>DID NOT ATTEND SCHOOL ..... 0  ATTENDED PRIMARY SCHOOL, DID NOT FINISH ..... 1  PRIMARY SCHOOL GRADUATE ..... 2  SECONDARY SCHOOL GRADUATE ..... 3  HIGH SCHOOL GRADUATE ..... 4  UNIVERSITY GRADUATE/GRADUATE EDUCATION ..... 5  DON'T KNOW ..... 8</p>	

119A	<p>For most of the time until you were 12 years old, where did you live?</p> <p>_____</p> <p>(NAME OF PLACE)</p> <p>Was it a province centre, district centre, a subdistrict or village ? Or did you live abroad?</p>	<p>CURRENT RESIDENCE .....0</p> <p>PROVINCE CENTRE .....1</p> <p>DISTRICT CENTRE.....2</p> <p>SUBDISTRICT OR VILLAGE .....3</p> <p>ABROAD .....4</p>	119C
119B	<p>In which province is this place now?</p> <p>RECORD THE NAME AND CODE OF THE PROVINCE.</p>	<p>NAME OF PROVINCE _____ PROVINCE CODE</p> <p>_____ <input type="text"/> <input type="text"/></p>	
119C	<p>How long have you been living continuously in ..... (NAME OF CURRENT PLACE OF INTERVIEW OR USUAL RESIDENCE)?</p>	<p>YEAR ..... <input type="text"/> <input type="text"/></p> <p>SINCE I WAS BORN .....95</p>	119G
119D	<p>Where did you live before you moved here (there)?</p> <p>_____</p> <p>(NAME OF THE PLACE)</p> <p>Was that a province centre, district centre, a subdistrict or village ? Or did you live abroad?</p>	<p>PROVINCE CENTRE .....1</p> <p>DISTRICT CENTRE.....2</p> <p>SUBDISTRICT OR VILLAGE .....3</p> <p>ABROAD .....4</p>	119F
119E	<p>In which province is this place now?</p> <p>RECORD THE NAME AND CODE OF THE PROVINCE.</p>	<p>NAME OF PROVINCE _____ PROVINCE CODE</p> <p>_____ <input type="text"/> <input type="text"/></p>	
119F	<p>What was the main reason for you to move to ..... (PLACE OF INTERVIEW OR USUAL RESIDENCE)?</p>	<p>PERSONAL REASONS</p> <p>MARRIAGE.....11</p> <p>EDUCATION.....12</p> <p>LOOKING FOR JOB.....13</p> <p>CHANGE OF JOB/APPOINTMENT.....14</p> <p>RETURN TO HOMELAND.....15</p> <p>SPOUSAL REASONS</p> <p>TO ACCOMPANY HUSBAND.....21</p> <p>CHANGE OF JOB/APPOINTMENT.....22</p> <p>LOOKING FOR JOB.....23</p> <p>HUSBAND DIED/DIVORCED.....24</p> <p>FAMILIAL REASONS</p> <p>TO JOIN PARENTS.....31</p> <p>CHANGE OF JOB/APPOINTMENT.....32</p> <p>LOOKING FOR JOB.....33</p> <p>HEALTH REASONS.....41</p> <p>SECURITY REASONS.....51</p> <p>OTHER _____ 96</p> <p>(SPECIFY)</p>	
119G	<p>CHECK 04 IN THE HOUSEHOLD QUESTIONNAIRE:</p> <p>THE WOMAN INTERVIEWED IS NOT A USUAL RESIDENT <input type="checkbox"/></p> <p>THE WOMAN INTERVIEWED IS A USUAL RESIDENT <input type="checkbox"/></p>		200S
120A	<p>What is the number of usual members living in your house?</p>	<p>NUMBER OF RESIDENTS ..... <input type="text"/> <input type="text"/></p>	

## HOUSING CHARACTERISTICS

<b>123</b>	Does the house you usually live belong to a household member, is it rented from someone else, is it a lodging, or do you just live here without having to pay anything?	<p>OWNED BY A HOUSEHOLD MEMBER .....1 → 125</p> <p>RENTED .....2  </p> <p>LODGING .....3 → 125</p> <p>NO RENT PAID .....4 } → 124</p> <p>OTHER .....7 } (SPECIFY)</p>				
<b>123A</b>	Do you have a tenancy agreement?	<p>YES .....1</p> <p>NO .....2</p>				
<b>124</b>	To whom does your house belong to?	<p>OTHER FAMILY MEMBER, RELATIVE .....1</p> <p>(NON-FAMILY MEMBER/NON-KIN) HOUSE OWNER.....2</p> <p>GOVERNMENT .....3</p> <p>PRIVATE ORGANISATION/FIRM.....4</p> <p>OTHER .....7 (SPECIFY)</p>				
<b>125</b>	Does anyone from your household own any other house elsewhere? ( <i>IF YES</i> ) How many?	<p>NO .....00</p> <p>NO. OF OWNED HOUSES ..... <table border="1" style="display: inline-table; width: 30px; height: 20px; vertical-align: middle;"><tr><td style="width: 15px;"></td><td style="width: 15px;"></td></tr></table></p>				
<b>129</b>	What is the source of drinking water for members of your household?	<p>PIPED WATER</p> <p>  PIPED WATER IN HOUSE/GARDEN .....11 → 131</p> <p>  PUB. PIPED WATER OUTSIDE HOUSE/GARDEN .....12  </p> <p>WELL WATER</p> <p>  WELL IN HOUSE/GARDEN .....21 → 131</p> <p>  PUBLIC WELL.....22  </p> <p>SURFACE WATER</p> <p>  PIPED SURFACE WATER IN HOUSE/GARDEN.....31 → 131</p> <p>  SPRING/PUBLIC FOUNTAIN.....32  </p> <p>  RIVER/STREAM/POND/LAKE/DAM.....33  </p> <p>RAINWATER .....41 → 131</p> <p>TANKER TRUCK .....51  </p> <p>BOTTLED WATER/DEMI JOHN/PET WATER .....61 → 133</p> <p>WATER STATION.....71  </p> <p>OTHER .....96 (SPECIFY)</p>				
<b>130</b>	How long does it take you go there, get water, and come back?	<p>MINUTE..... <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"><tr><td style="width: 13px;"></td><td style="width: 13px;"></td><td style="width: 13px;"></td></tr></table></p> <p>ON PREMISES .....996</p>				
<b>131</b>	Is water always available at this source? How frequently is it available	<p>USUALLY/ALWAYS .....1</p> <p>SEVERAL HOURS IN A DAY .....2</p> <p>EVERY OTHER DAY .....3</p> <p>A FEW TIMES IN A WEEK.....4</p> <p>RARELY .....5</p> <p>DON'T KNOW .....8</p>				







		YES	NO	
<b>144</b>	Do you have the following in the household?			
	Refrigerator	REFRIGERATOR.....0	1	
	Gas or electric oven	GAS OR ELECTRIC OVEN.....0	1	
	Microwave oven	MICROWAVE OVEN.....0	1	
	Dishwasher	DISHWASHER.....0	1	
	Blender/Mixer	BLENDER/MIXER.....0	1	
	DVD/VCD Player	DVD/VCD PLAYER.....0	1	
	Washing Machine	WASHING MACHINE.....0	1	
	Video Camera	VIDEO CAMERA.....0	1	
	Iron	IRON.....0	1	
	Digiturk, CINE 5, Satellite Antenna etc.	DIGITURK, CINE5, SATELLITE ANTENNA.....0	1	
	Vacuum Cleaner	VACUUM CLEANER.....0	1	
	Air Conditioner	AIR CONDITIONER.....0	1	
	Television ( <i>IF YES</i> ) How many?	TELEVISION.....0	<input type="text"/>	
	Video	VIDEO.....0	1	
	Cable TV	CABLE TV.....0	1	
	Camera	CAMERA.....0	1	
	CD Player	CD PLAYER.....0	1	
	Telephone	TELEPHONE.....0	1	
	Cellular phone ( <i>IF YES</i> ) How many members have cellular phone?	CELLULAR PHONE.....0	<input type="text"/>	
	Computer	COMPUTER.....0	1	
	Internet	INTERNET.....0	1	
	Private Car ( <i>IF YES</i> ) How many?	PRIVATE CAR.....0	<input type="text"/>	
	Taxi/Minibus/Bus/commercial vehicles	TAXI/MINIBUS/BUS.....0	1	
	Tractor	TRACTOR.....0	1	
	Motorcycle	MOTORCYCLE.....0	1	
	Bicycle	BICYCLE.....0	1	
<b>145</b>	Does any member of this household have a credit card? ( <i>IF YES</i> ) How many members have credit cards?	NONE.....0	<input type="text"/>	
		NUMBER OF PERSONS HAVING CARDS.....	<input type="text"/>	
<b>146</b>	I would like to get an estimate of the total income earned by the members of this household. Approximately, do the household members earn per month totally:			
<b>146A</b>	More than 450 million?	YES.....1	NO.....2	→ 146F
<b>146B</b>	More than 600 million?	YES.....1	NO.....2	→ 200S
<b>146C</b>	More than 750 million?	YES.....1	NO.....2	→ 200S
<b>146D</b>	More than 1 billion?	YES.....1	NO.....2	→ 200S
<b>146E</b>	More than 3 billion?	YES.....1	NO.....2	→ 200S
<b>146F</b>	Less than 300 million?	YES.....1	NO.....2	→ 147
<b>146G</b>	Less than 150 million?	YES.....1	NO.....2	



## SECTION 2A. REPRODUCTION

<b>200S</b>	<i>RECORD TIME</i>	HOUR – MINUTE..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
<b>201</b>	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES..... 1 NO..... 2 → 206
<b>202</b>	Do you have any sons or daughters to whom you have given birth who are living with you?	YES ..... 1 NO ..... 2 → 204
<b>203</b>	How many sons live with you? And how many daughters live with you?  <i>IF NONE, RECORD "00".</i>	SONS AT HOME ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>  DAUGHTERS AT HOME ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
<b>204</b>	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES ..... 1 NO ..... 2 → 206
<b>205</b>	How many sons are alive but do not live with you? How many daughters are alive but do not live with you?  <i>IF NONE, RECORD "00".</i>	SONS ELSEWHERE ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>  DAUGHTERS ELSEWHERE ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
<b>206</b>	Have you ever given birth to a boy or a girl who was born alive but died later?  <i>IF NO, PROBE BEFORE RECORDING:</i> Any baby who cried or showed signs of life but only survived a few hours or days?	YES ..... 1 NO ..... 2 → 208
<b>207</b>	In all, how many boys have died? And how many girls have died?  <i>IF NONE, RECORD "00".</i>	BOYS DEAD..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>  GIRLS DEAD..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
<b>208</b>	<i>SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL</i>  <i>IF NONE, RECORD "00".</i>	TOTAL..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
<b>209</b>	<i>CHECK 208:</i> Just to make sure that I have this right: you have had _____ in TOTAL _____ live births during your life. Is this true?  YES <input style="width: 20px; height: 20px;" type="checkbox"/> NO <input style="width: 20px; height: 20px;" type="checkbox"/> → <i>PROBE AND CORRECT 201-208</i>	
<b>210</b>	<i>CHECK 208:</i>  HAS AT LEAST ONE LIVE BIRTH <input style="width: 20px; height: 20px;" type="checkbox"/> HAS NO LIVE LIVE BIRTHS <input style="width: 20px; height: 20px;" type="checkbox"/> → 227	

211

Now I would like to talk to you about all of your births. It is very important to learn about all of your births, whether still alive or not. Please let's start with the first one you had  
*RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES MAKE SURE TO RECORD DECEASED CHILDREN FROM MULTIPLE BIRTHS BEFORE THOSE SURVIVING.*

<p>212 What name was given to your (first/next) baby?</p> <p><i>WRITE "BABY" IF THE BABY DIED BEFORE A NAME GIVEN.</i></p>	<p>213 <i>RECORD SINGLE OR MULTIPLE BIRTH STATUS.</i></p>	<p>214 Is ..... a boy or a girl?</p>	<p>215 In what month and year..... born? <i>PROBE:</i> In what season was s/he born?</p> <p><i>NOTE: FOR ALL CHILDREN, THE YEAR OF BIRTH; FOR CHILDREN BORN AFTER 1998, THE MONTH OF THE YEAR OF BIRTH MUST BE DETERMINED.</i></p>	<p>216 Is ..... still alive?</p>
<p>01</p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>
<p>02</p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>
<p>03</p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>
<p>04</p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>
<p>05</p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>

<p><b>217</b> How old was .... at his/her last birthday?</p> <p><i>RECORD AGE IN COMPLETED YEARS. MAKE CALCULATIONS FOR CONSISTENCY.</i></p>	<p><b>218</b> ..... Is..... living with you?</p>	<p><b>218A</b> <i>RECORD THE LINE NUMBER OF CHILD IN THE HH LIST. IF S/HE WASN'T RECORDED IN HH LIST, RECORD "00".</i></p>	<p><b>219</b> <i>IF DEAD:</i></p> <p>How old was ..... when he/she died?</p> <p><i>IF "1" YR., PROBE: How many months old was ....? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS OR YEARS OTHERWISE.</i></p>	<p><b>221</b></p> <p>Were there any other live births between (NAME OF PREVIOUS BIRTH) and .....?</p>
<p>AGE (IN YEARS)</p> <div style="border: 1px solid black; width: 40px; height: 25px; margin: 0 auto;"></div>	<p>YES .....1</p> <p>NO .....2</p>	<div style="border: 1px solid black; width: 40px; height: 25px; margin: 0 auto;"></div> <p><i>NEXT BIRTH</i></p>	<p>DAY ..... 1</p> <p>MONTH ..... 2</p> <p>YEAR ..... 3</p> <div style="border: 1px solid black; width: 40px; height: 60px; margin: 0 auto; display: flex; flex-direction: column;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 2px;"></div> </div>	
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				<p><i>IF THE ANSWER IS YES GO AND MAKE THE CHANGES</i></p>

<p><b>212</b> What name was given to your (first/next) baby?</p> <p><i>WRITE "BABY IF THE BABY DIED BEFORE A NAME GIVEN.</i></p>	<p><b>213</b> <i>RECORD SINGLE OR MULTIPLE BIRTH STATUS.</i></p>	<p><b>214</b> Is ..... a boy or a girl?</p>	<p><b>215</b> In what month and year..... born? <i>PROBE:</i> In what season was s/he born?</p> <p><i>NOTE: FOR ALL CHILDREN, THE YEAR OF BIRTH; FOR CHILDREN BORN AFTER 1998, THE MONTH OF THE YEAR OF BIRTH MUST BE DETERMINED.</i></p>	<p><b>216</b> Is ..... still alive?</p>
<p><b>06</b></p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>
<p><b>07</b></p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>
<p><b>08</b></p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>
<p><b>09</b></p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>
<p><b>10</b></p> <p>_____</p> <p>(NAME)</p>	<p>SINGLE .....1</p> <p>MULTIPLE .....2</p>	<p>BOY.....1</p> <p>GIRL .....2</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>YES.....1</p> <p>NO.....2 <input type="checkbox"/></p> <p>219 ←</p>

TICK HERE IF NUMBER OF LIVE BIRTHS IS MORE THAN 10 AND CONTINUE IN ANOTHER QUESTIONNAIRE FORM



<p><b>217</b> How old was .... at his/her last birthday?</p> <p><i>RECORD AGE IN COMPLETED YEARS. MAKE CALCULATIONS FOR CONSISTENCY.</i></p>	<p><b>218</b> ..... Is..... living with you?</p>	<p><b>218A</b> RECORD THE LINE NUMBER OF CHILD IN THE HH LIST. IF S/HE WASN'T RECORDED IN HH LIST, RECORD "00".</p>	<p><b>219</b> IF DEAD: How old was ..... when he/she died?  IF "1" YR., PROBE: How many months old was ....? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS OR YEARS OTHERWISE.</p>	<p><b>221</b> Were there any other live births between (NAME OF PREVIOUS BIRTH) and .....?</p>										
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<p>IF THE ANSWER IS YES GO AND MAKE THE CHANGES</p>														

223A	Have you had any live births since the birth of (NAME OF LAST BIRTH)?	YES ..... 1 NO ..... 2	→ 224
223B	GO BACK AND MAKE THE NECESSARY CORRECTIONS.		
224	<p>COMPARE 208 WITH NUMBER OF BIRTHS IN BIRTH HISTORY ABOVE:          NUMBERS ARE SAME <input type="checkbox"/> NUMBERS ARE DIFFERENT <input type="checkbox"/> → (PROBE, RECONCILE AND MAKE NECESSARY CORRECTIONS)</p> <p>↓          CHECK AND TICK:</p> <p>FOR EACH BIRTH: YEAR OF BIRTH (215) IS RECORDED ..... <input type="checkbox"/></p> <p>FOR EACH BIRTH AFTER 1998: MONTH OF BIRTH (215) IS RECORDED..... <input type="checkbox"/></p> <p>(IF ANY) FOR EACH LIVING CHILD: CURRENT AGE (217) IS RECORDED ..... <input type="checkbox"/></p> <p>(IF ANY) FOR EACH DEAD CHILD:          AGE AT DEATH (219) IS RECORDED..... <input type="checkbox"/></p> <p>FOR AGE AT DEATH 12 MONTHS OR 1 YR.: PROBED TO DETERMINE EXACT NUMBER OF MONTHS (219) <input type="checkbox"/></p>		
225	CHECK 215 AND ENTER THE NUMBER OF BIRTHS SINCE JANUARY 1998  IF NONE, RECORD "0".	<input type="checkbox"/>	
226	<p><b>C</b> FOR EACH BIRTH SINCE JANUARY 1998 ENTER "D" IN THE MONTH OF BIRTH IN COLUMN 1 OF THE CALENDAR. LEARN THE MONTHS IN PREGNANCIES FOR EACH BIRTHS AND RECORD "H" IN EACH OF THE PRECEDING MONTHS.(NUMBER OF "H" MUST BE LESS THAN PREGNANCY MONTHS) WRITE NAME OF CHILD TO THE LEFT OF THE "D" CODE.</p>		
227	Are you pregnant now?	YES ..... 1 NO ..... 2 UNSURE ..... 8	→ 230A
228	<p>How many months pregnant are you?</p> <p><b>C</b> RECORD NUMBER OF COMPLETED MONTHS ENTER "H"s IN COLUMN 1 OF THE CALENDAR BEGINNING WITH THE MONTH OF INTERVIEW AND FOR TOTAL NUMBER OF COMPLETED MONTHS.</p>	MONTH ..... <input type="checkbox"/> <input type="checkbox"/>	

229	At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have any more children at all?	THEN..... 1 LATER..... 2 NOT WANT MORE CHILDREN..... 3	
230A	Have you ever had a pregnancy that ended in a miscarriage?	YES ..... 1 NO ..... 2	→ 230C
230B	In all, how many miscarriages have you had?	NUMBER OF MISCARRIAGES..... <input type="text"/> <input type="text"/>	
230C	Have you ever had a pregnancy that ended in an induced abortion?	YES ..... 1 NO ..... 2	→ 230E
230D	In all, how many induced abortions have you had?	NO. OF INDUCED ABORTION ... <input type="text"/> <input type="text"/>	
230E	Have you ever had a pregnancy that ended in a stillbirth?	YES ..... 1 NO ..... 2	→ 230G
230F	In all, how many still births have you had?	NUMBER OF STILL BIRTHS ..... <input type="text"/> <input type="text"/>	
230G	<p><i>CALCULATE THE TOTAL NUMBER OF COMPLETED PREGNANCIES.</i></p> <p><i>TOTAL NUMBER OF PREGNANCIES ENDING IN MISCARRIAGES, INDUCED ABORTIONS OR STILL BIRTHS:</i>  <i>SUM THE ANSWERS TO 230B, 230D AND 230F</i> _____</p> <p><i>TOTAL NUMBER OF PREGNANCIES ENDING IN LIVE BIRTHS:</i>  <i>SUM THE NUMBER OF SINGLE BIRTHS IN THE BIRTH HISTORY</i> + _____  <i>ADD TO THAT SUM THE NUMBER OF MULTIPLE BIRTHS</i> + _____</p> <p>TOTAL NUMBER OF COMPLETED PREGNANCIES: = _____</p>	TOTAL NUMBER OF COMPLETED PREGNANCIES..... <input type="text"/> <input type="text"/>	

<p><b>230H</b></p>	<p><i>CHECK 230G:</i> Just to make sure that I have this right. You have had in TOTAL _____ completed pregnancies. Is that correct?</p> <p>YES <input type="checkbox"/>                      NO <input type="checkbox"/> → <i>PROBE AND CORRECT 201-230G AS NECESSARY.</i></p>	
<p><b>230I</b></p>	<p><i>CHECK 230B, 230D AND 230F:</i></p> <p>HAD AT LEAST ONE INDUCED ABORTION, MISCARRIAGE OR STILLBIRTH <input type="checkbox"/></p> <p>HAD NO INDUCED ABORTIONS, MISCARRIAGES OR STILLBIRTHS <input type="checkbox"/></p>	<p>→ 234</p>
<p><b>231A</b></p>	<p>Now I would like to ask about any recent induced abortions, miscarriages or stillbirths, which you have had. When did the last such pregnancy ended?</p>	<p>MONTH ..... <input type="text"/> <input type="text"/></p> <p>YEAR..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>
<p><b>231B</b></p>	<p>Was this an induced abortion, a miscarriage or a stillbirth?</p>	<p>INDUCED ABORTION..... 1</p> <p>MISCARRIAGE..... 2</p> <p>STILLBIRTH..... 3 → 232</p>
<p><b>231C</b></p>	<p>Whose decision was to end your pregnancy with an induced abortion?</p>	<p>DOCTOR ..... 01</p> <p>HERSELF..... 02</p> <p>HUSBAND..... 03</p> <p>WOMAN AND HUSBAND TOGETHER... 04</p> <p>OTHER _____ 96 (SPECIFY)</p>
<p><b>231D</b></p>	<p>What was the main reason that your pregnancy to end with an induced abortion?</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p><input type="text"/> <input type="text"/> <input type="text"/></p>

231E	Where did the operation of induced abortion take place?  <hr/> (NAME OF PLACE)	<p><b>PUBLIC SECTOR</b></p> STATE/SAMPLE HOSPITAL..... 11 MATERNITY HOUSE..... 12 MCHFP CENTRE..... 13 SSK HOSPITAL/DISPENSARY..... 16  OTHER _____ 19 (SPECIFY)
		<p><b>PRIVATE SECTOR</b></p> PRIVATE HOSPITAL ..... 21 PRIVATE POLYCLINIC ..... 22 PRIVATE DOCTOR ..... 23  OTHER _____ 29 (SPECIFY)
		UNIVERSITY HOSPITAL ..... 31  VOLUNTEER ORGANIZATION/ ASSOCIATION/FOUNDATION ..... 41  OTHER _____ 96 (SPECIFY)

232	CHECK 231A: LAST INDUCED ABORTION/MISCARRIAGE/ STILLBIRTH ENDED SINCE JANUARY 1998 <input type="checkbox"/>	LAST INDUCED ABORTION/MISCARRIAGE/ STILLBIRTH ENDED BEFORE JANUARY 1998 <input type="checkbox"/> → 234
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233	How many months pregnant were you when the last pregnancy ended?  <p><b>C</b> RECORD NUMBER OF COMPLETED MONTHS FOR ALL WASTED PREGNANCIES SINCE 1998          (EXCEPT FOR LIVE BIRTHS) IN COLUMNS 1 AND 2.</p> <p>- PROBE TO DETERMINE HOW THE PREGNANCY ENDED (INDUCED ABORTION, MISCARRIAGE, STILL BIRTH).          - IN COLUMN 1 ENTER THE APPROPRIATE CODE IN THE MONTH AND YEAR THE PREGNANCY TERMINATED.          - DETERMINE THE NUMBER OF COMPLETED MONTHS AND ENTER "H" FOR THE REMAINING NUMBER OF COMPLETED MONTHS.          - IF THE PREGNANCY ENDED WITH INDUCED ABORTION, ENTER THE CODE FOR THE PLACE OF INDUCED ABORTION IN COLUMN 2 OF CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED.</p> <p>THEN ASK FOR DATES AND DURATIONS OF ANY OTHER PREGNANCIES BACK TO JANUARY 1998 REPEAT THE PROCEDURES AS DESCRIBED ABOVE FOR THESE PREGNANCIES.</p> <p>ILLUSTRATIVE QUESTIONS:          - How did this pregnancy end? (Was it an induced abortion, miscarriage, or stillbirth etc.)          - What was the total duration of this pregnancy? How many months pregnant were you?          - Where did you have this induced abortion?</p>	MONTH ..... <input type="text"/> <input type="text"/>
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234	<p>When did your last menstrual period start?</p> <p>_____</p> <p>(DATE, IF GIVEN)</p> <p><i>RECORD THE ANSWER AS GIVEN. IF EXACT DATE IS GIVEN RECORD AND DO NOT MAKE ANY OTHER CALCULATIONS.</i></p>	<p>DAYS AGO.....1 <input type="text"/> <input type="text"/></p> <p>WEEKS AGO.....2 <input type="text"/> <input type="text"/></p> <p>MONTHS AGO.....3 <input type="text"/> <input type="text"/></p> <p>YEARS AGO.....4 <input type="text"/> <input type="text"/></p> <p>CURRENTLY PREGNANT.....993</p> <p>IN MENOPAUSE/ HYSTERECTOMY .....994</p> <p>BEFORE LAST BIRTH.....995</p> <p>NEVER MENSTRUATED.....996</p>
235	<p>Think about the time between the beginning of a menstruation period and the beginning of the next menstruation period.</p> <p>Are there certain days when a woman is more likely to become pregnant if she has sexual relations?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p> <p style="text-align: right;">→ 237S</p>
236	<p>Is this time just before her period begins, during her period, right after her period has ended, or half way between two periods?</p>	<p>JUST BEFORE HER PERIOD BEGINS ..... 1</p> <p>DURING HER PERIOD ..... 2</p> <p>RIGHT AFTER HER PERIOD HAS ENDED ..... 3</p> <p>HALF WAY BETWEEN TWO PERIODS ..... 4</p> <p>OTHER ..... 7</p> <p>(SPECIFY) ..... 8</p> <p>DON'T KNOW .....</p>
237S	<p><i>RECORD TIME</i></p>	<p>HOUR – MINUTE..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>

## SECTION 2B. MARRIAGE

<b>250</b>	Are you currently married?  <i>ACCEPT THOSE LIVING TOGETHER AS BEING MARRIED.</i>	YES, CURRENTLY MARRIED..... 1 NO, CURRENTLY NOT MARRIED ..... 2
<b>255</b>	Did you marry only once or more than once? (IF MORE THAN ONCE) How many times?	NUMBER OF MARRIAGES..... <input style="width: 40px; height: 20px;" type="text"/>
<b>257</b>	CHECK 255:  <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">                     MARRIED ONCE <input style="width: 30px; height: 20px;" type="checkbox"/>                      ↓                      In what month and year                      did you marry (start                      living with) your husband?                 </div> <div style="text-align: center;">                     MARRIED MORE                      THAN ONCE <input style="width: 30px; height: 20px;" type="checkbox"/>                      ↓                      Now, let's talk about your first husband                      In what month and year did you marry                      (start living with) your husband?                 </div> </div>	MONTH..... <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> DON'T KNOW MONTH.....98  YEAR..... <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> DON'T KNOW YEAR .....9998
<b>258</b>	How old were you when you started living with your (first) husband?	AGE..... <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/>
<b>259</b>	How old was your (first) husband when you started living with him?  <i>IF THE WOMAN DOES NOT KNOW HER (FIRST) HUSBAND'S AGE AT MARRIAGE, ASK THE AGE DIFFERENCE IS THERE BETWEEN HER AND HER (FIRST) HUSBAND AND ESTIMATE HER (FIRST) HUSBAND'S MARRIAGE AGE.</i>	AGE..... <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/>

263	Now I want to ask some questions about your marriage(s).  <i>CHECK 255: IF MARRIED ONLY ONCE, USE COLUMN 1.          IF MARRIED MORE THAN ONCE, USE COLUMN 1 FOR THE FIRST HUSBAND, USE COLUMN 2 FOR LAST/CURRENT HUSBAND.</i>		
		COLUMN 1 FIRST HUSBAND  NAME _____	COLUMN 2 LAST HUSBAND  NAME _____
264	In which month and year did you start living with ..... ?		MONTH ..... <input type="text"/> <input type="text"/> DON'T KNOW MONTH ..... 98 YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR ..... 9998
265A	Did you have a civil marriage ceremony with .....?	YES..... 1 NO ..... 2	YES..... 1 NO ..... 2
265B	Did you have a religious ceremony with .....?	YES..... 1 NO ..... 2	YES..... 1 NO ..... 2
265C	<i>CHECK 265A AND 265B:</i>	CIVIL AND RELIGIOUS..... 1 ONLY CIVIL ..... 2 ONLY RELIGIOUS..... 3 268 ← 4 NO CEREMONY ..... 4	CIVIL AND RELIGIOUS..... 1 ONLY CIVIL ..... 2 ONLY RELIGIOUS..... 3 268 ← 4 NO CEREMONY ..... 4
266	Which marriage ceremony took place earlier?	CIVIL CEREMONY ..... 1 RELIGIOUS CEREMONY..... 2	CIVIL CEREMONY ..... 1 RELIGIOUS CEROMONY..... 2
267	How much time elapsed between two ceremonies?  <i>RECORD "00" DAYS IF BOTH TOOK PLACE ON THE SAME DAY.          IF LESS THAN ONE MONTH RECORD AS DAY, IF LESS THAN TWO YEARS RECORD AS MONTH, OTHERWISE RECORD AS YEAR.</i>	YEAR.....1 <input type="text"/> <input type="text"/> MONTH.....2 <input type="text"/> <input type="text"/> DAY.....3 <input type="text"/> <input type="text"/>	YEAR.....1 <input type="text"/> <input type="text"/> MONTH.....2 <input type="text"/> <input type="text"/> DAY.....3 <input type="text"/> <input type="text"/>
268	How was your marriage with ..... arranged? Did you decide together or was it arranged by your families?	BY OURSELVES..... 1 BY FAMILIES ..... 2 ESCAPED/ABDUCTED..... 3  OTHER ..... 7	BY OURSELVES..... 1 BY FAMILIES ..... 2 ESCAPED/ABDUCTED..... 3  OTHER ..... 7
269	Did ..... or his family pay bridesmoney?  <i>(IF YES)</i> Was it given in cash or in kind?	NO..... 1 YES, IN CASH/GOLD..... 2 YES, IN KIND..... 3 YES, BOTH..... 4  OTHER ..... 7 (SPECIFY)	NO..... 1 YES, IN CASH/GOLD..... 2 YES, IN KIND..... 3 YES, BOTH..... 4  OTHER ..... 7 (SPECIFY)



		COLUMN 1 FIRST HUSBAND NAME _____	COLUMN 2 LAST HUSBAND NAME _____
270	When you first started to live with ..... was there anyone else living with you in your household at that time?	YES ..... 1 NO ..... 2 272 ←	YES ..... 1 NO ..... 2 272 ←
271	Who else was with you?  Who else?  <i>RECORD ALL MENTIONED.</i>	<b>HUSBAND'S</b> MOTHER/FATHER ..... A SIBLING(S)..... B GRANDMOTHER/FATHER..... C OTHER RELATIVES..... D CHILDREN..... E <b>HER</b> MOTHER/FATHER ..... F SIBLING(S)..... G GRANDMOTHER/FATHER..... H OTHER RELATIVES..... I CHILDREN..... J  NOT RELATIVES OF HER OR HER HUSBAND..... K  OTHER ..... U (SPECIFY)	<b>HUSBAND'S</b> MOTHER/FATHER ..... A SIBLING(S)..... B GRANDMOTHER/FATHER..... C OTHER RELATIVES..... D CHILDREN..... E <b>HER</b> MOTHER/FATHER ..... F SIBLING(S)..... G GRANDMOTHER/FATHER..... H OTHER RELATIVES..... I CHILDREN..... J  NOT RELATIVES OF HER OR HER HUSBAND..... K  OTHER ..... U (SPECIFY)
272	Are you related to .....?	YES ..... 1 NO ..... 2 274 ←	YES ..... 1 NO ..... 2 274 ←
273	What is (was) his relationship to you?	FATHER'S BROTHER'S SON..... 01 FATHER'S SISTER'S SON..... 02 MOTHER'S SISTER'S SON..... 03 MOTHER'S BROTHER'S SON..... 04  OTHER ..... 96 (SPECIFY)	FATHER'S BROTHER'S SON..... 01 FATHER'S SISTER'S SON..... 02 MOTHER'S SISTER'S SON..... 03 MOTHER'S BROTHER'S SON..... 04  OTHER ..... 96 (SPECIFY)
274	<i>IS MARRIAGE CONTINUING?</i>	YES                      NO <input type="checkbox"/> → 278 <input type="checkbox"/> ↓	YES                      NO <input type="checkbox"/> → 279 <input type="checkbox"/> ↓
275	In which month and year did your marriage with ..... end?	MONTH ..... <input type="text"/> <input type="text"/> DON'T KNOW MONTH ..... 98 YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR ..... 9998	MONTH ..... <input type="text"/> <input type="text"/> DON'T KNOW MONTH ..... 98 YEAR ..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DON'T KNOW YEAR ..... 9998
276	How did your marriage with ..... ended? Did you get divorced, did ..... die or did you start to live separated?	WIDOWED ..... 1 DIVORCED ..... 2 STARTED LIVING SEPARATED ..... 3	WIDOWED ..... 1 DIVORCED ..... 2 STARTED LIVING SEPARATED ..... 3
278		<i>IF MARRIED MORE THAN ONCE TURN BACK TO 264 TO TALK ABOUT HER LAST/CURRENT HUSBAND. IF MARRIED ONCE SKIP TO 279.</i>	<i>SKIP TO 279.</i>

**C**

*IF CURRENTLY MARRIED ENTER "X" IN THE MONTH OF INTERVIEW IN COLUMN 3 OF CALENDAR.  
THEN, DETERMINE MONTHS MARRIED OR IN UNION SINCE JANUARY 1998. ENTER "X" IN COLUMN 3 OF CALENDAR  
FOR EACH MONTH MARRIED OR IN UNION, AND ENTER "0" FOR EACH MONTH NOT MARRIED/NOT IN UNION.  
NOTE: AFTER YOU HAVE COMPLETED THESE, ALL THE BOXES IN COLUMN 3 FROM JANUARY 1998 TO  
INTERVIEW MONTH SHOULD BE FILLED .*

### SECTION 3. CONTRACEPTION

**301** Now I would like to talk about family planning. There are various methods that a married couple can use to avoid pregnancy.

- *CIRCLE CODE '1' IN Q. 301A FOR EACH METHOD MENTIONED SPONTANEOUSLY.*
- *THEN PROCEED DOWN COLUMN 302, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY AND ASK WHETHER SHE HAS HEARD THE METHOD.*
- *IN Q 302, CIRCLE CODE '2' IF METHOD IS RECOGNIZED AND CODE '3' IF NOT RECOGNIZED.*
- *THEN FOR EACH METHOD WITH CODE '1' OR '2' CIRCLED IN 301A OR 302, ASK 303.*
- *AFTER ASKING ABOUT ALL METHODS PROCEED TO 304.*

	<b>301A</b> Which ways or methods have you heard?	<b>SPON- TANEOUS</b>	<b>302</b> Have you ever heard this method? PROBED		<b>303</b> Have you ever used this method?
		YES	YES	NO	
<b>01</b>	<b>TUBAL LIGATION</b> Women can have an operation of tubal ligation to avoid having any more children.	1	2	3	Have you ever had such an operation to avoid having any more children? YES ..... 1 NO ..... 2
<b>02</b>	<b>MALE STERILIZATION</b> Men can have an operation called vasectomy so that their wives would not get pregnant.	1	2	3	Has (had) your (former) husband ever had such an operation? YES ..... 1 NO ..... 2
<b>03</b>	<b>PILL</b> Women can avoid a pregnancy by taking a pill every day.	1	2	3	YES ..... 1 NO ..... 2
<b>04</b>	<b>IUD</b> Women can have the so called spiral or IUD placed in them by a doctor or a nurse.	1	2	3	YES ..... 1 NO ..... 2
<b>05</b>	<b>INJECTABLES</b> Women can have an injection by a doctor or a nurse, which stops them from becoming pregnant for certain period of time.	1	2	3	YES ..... 1 NO ..... 2
<b>06</b>	<b>IMPLANT/NORPLANT</b> Women can have small rods placed in their arm and this can prevent pregnancy for several years.	1	2	3	YES ..... 1 NO ..... 2
<b>07</b>	<b>CONDOM</b> Men can put a rubber sheath on their penis during sexual intercourse.	1	2	3	YES ..... 1 NO ..... 2
<b>08</b>	<b>FEMALE CONDOM</b> Women can place a sheath in their vagina before sexual intercourse.	1	2	3	YES ..... 1 NO ..... 2
<b>09</b>	<b>DIAPHRAGM, FOAM, JELLY</b> Women can place a sponge, suppository, diaphragm, jelly or cream inside themselves before intercourse.	1	2	3	YES ..... 1 NO ..... 2
<b>11</b>	<b>LACTATIONAL AMENORRHEA METHOD (LAM)</b> Up to 6 months after childbirth, a woman can use a method that requires that she breastfeeds frequently and that her menstrual period has not returned.	1	2	3	YES ..... 1 NO ..... 2
<b>12</b>	<b>RHYTHM</b> Some couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	1	2	3	YES ..... 1 NO ..... 2
<b>13</b>	<b>WITHDRAWAL</b> Some men pull out during sexual intercourse before climax.	1	2	3	YES ..... 1 NO ..... 2
<b>14</b>	<b>EMERGENCY CONTRACEPTION</b> Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	1	2	3	YES ..... 1 NO ..... 2
<b>15</b>	Have you heard of any other method that women or men can use to avoid pregnancy?	1		3	
			_____		
			(SPECIFY)		YES ..... 1 NO ..... 2
			_____		
			(SPECIFY)		YES ..... 1 NO ..... 2

304	<p>CHECK 303:</p> <p>NOT A SINGLE "YES" (NEVER USED) <input type="checkbox"/></p>	<p>AT LEAST ONE "YES" (EVER USED) <input type="checkbox"/></p>	308
305	<p>Have you ever used anything or tried in any way to delay or avoid getting pregnant?</p>	<p>YES .....1</p> <p>NO .....2</p>	307
306	<p><b>C</b> ENTER "0" IN COLUMN 1 OF CALENDAR IN EACH BLANK MONTH. <input type="checkbox"/></p>		331
307	<p>What have you used or done?  CORRECT 303 AND 304.  IF NECESSARY CORRECT 301A AND 302.</p>		
308	<p>Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant.</p> <p>What was the first method you ever used?</p>	<p>TUBAL LIGATION .....01</p> <p>MALE STERILIZATION .....02</p> <p>PILL .....03</p> <p>IUD .....04</p> <p>INJECTABLES .....05</p> <p>IMPLANT/NORPLANT .....06</p> <p>CONDOM .....07</p> <p>FEMALE CONDOM .....08</p> <p>DIAPHRAGM/FOAM/JELLY .....09</p> <p>LACTATIONAL AMEN. METHOD .....11</p> <p>RHYTHM .....12</p> <p>WITHDRAWAL .....13</p> <p>EMERGENCY CONTRACEPTION .....14</p> <p>OTHER _____ 96 (SPECIFY)</p>	
309	<p>Did you have any children at that time? (IF YES) How many living children did you have at that time?</p> <p>IF NONE, RECORD "00".</p>	<p>NUMBER OF CHILDREN ..... <input type="text"/> <input type="text"/></p>	
310	<p>CHECK 303:</p> <p>NOT HAD TUBAL LIGATION <input type="checkbox"/></p>	<p>HAD TUBAL LIGATION <input type="checkbox"/></p>	314A
311	<p>CHECK 227:</p> <p>NOT PREGNANT OR UNSURE <input type="checkbox"/></p>	<p>PREGNANT <input type="checkbox"/></p>	324C
312	<p>CHECK 250:</p> <p>CURRENTLY MARRIED <input type="checkbox"/></p>	<p>NOT MARRIED <input type="checkbox"/></p>	324B
313	<p>Are you currently doing something or using any method to delay or avoid getting pregnant?</p>	<p>YES .....1</p> <p>NO .....2</p>	325

314	Which method are you using?	TUBAL LIGATION .....A MALE STERILIZATION .....B PILL .....C IUD .....D INJECTABLES .....E IMPLANT/NORPLANT .....F CONDOM .....G FEMALE CONDOM .....H DIAPHRAGM/FOAM/JELLY .....I LACTATIONAL AMEN. METHOD .....K RHYTHM .....L WITHDRAWAL .....M  OTHER _____ U (SPECIFY)	
314A	CIRCLE "A" FOR TUBAL LIGATION.		
314B	CHECK 314 AND 314A:  HAD TUBAL LIGATION <input type="checkbox"/>	NOT HAD TUBAL LIGATION <input type="checkbox"/>	315
314E	In what month and year was this operation performed?	MONTH ..... YEAR .....	
314F	CHECK 314E:  HAD TUBAL LIGATION OPERATION BEFORE JANUARY 1998 <input type="checkbox"/>  ENTER (1) IN MONTH OF INTERVIEW IN COLUMN 1 OF THE CALENDAR AND EACH MONTH BACK TO JANUARY 1998.	HAD TUBAL LIGATION OPERATION AFTER JANUARY 1998 <input type="checkbox"/>  ENTER (1) IN MONTH OF THE INTERVIEW IN COLUMN 1 OF THE CALENDAR AND IN EACH MONTH BACK TO THE DATE OF THE OPERATION.	C
315	CHECK 314 AND 314A:  ENTER CODE FOR CURRENTLY USED METHOD.  IF MORE THAN ONE METHOD IS CIRCLED IN 314 CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NOT ASKED .....00 → 331 TUBAL LIGATION .....01 MALE STERILIZATION .....02 → 324A PILL .....03 IUD .....04 INJECTABLES .....05 IMPLANT/NORPLANT .....06 CONDOM .....07 FEMALE CONDOM .....08 DIAPHRAGM/FOAM/JELLY .....09 LACTATIONAL AMEN. METHOD .....11 → 324A RHYTHM .....12 WITHDRAWAL .....13  OTHER METHOD .....96	
316	When you applied to the health personnel (DOCTOR/NURSE/MIDWIFE) were you told about side effects or problems you might have with the method?	YES .....1 NO .....2 → 324A	
319	Were you ever told about side effects or problems you might have with the method when you were informed about the method?	YES .....1 NO .....2 → 321	
320	Were you told what to do if you experienced side effects or problems of the method you are currently using?	YES .....1 NO .....2	

321	When you were told on the current method you are using, were you also told about other methods of family planning?	YES ..... 1 NO ..... 2	
324A	<p><b>C</b> ENTER METHOD CODE FROM 314 IN CURRENT MONTH IN COLUMN 1 OF CALENDAR. THEN DETERMINE WHEN SHE STARTED USING THIS METHOD. ENTER METHOD CODE IN EACH MONTH OF USE AND THEN SKIP TO 324C.</p> <p>ILLUSTRATIVE QUESTIONS: When did you start using this method continuously? How long have you been using this method continuously?</p>		
324B	<p><b>C</b> CHECK COLUMN 3 OF CALENDAR:</p> <p>IN COLUMN 1 OF CALENDAR ENTER "N" FOR MONTHS WOMAN NOT MARRIED.</p>		
324C	<p><b>C</b> CHECK COLUMN 1 OF CALENDAR:</p> <p>THERE ARE EMPTY BOXES <input type="checkbox"/></p> <p>ALL BOXES ARE FILLED <input type="checkbox"/> → 326A</p>		
325	<p>I would like to ask you some questions about the times you may have used a method to avoid getting pregnant during the last few years.</p> <p><b>C</b> START WITH THE MOST RECENT USE. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE BACK TO JANUARY 1998. USE NAMES OF CHILDREN, DATES OF BIRTH, AND STARTING AND ENDING DATES OF PREGNANCIES AS REFERENCE POINTS.</p> <p>IN COLUMN 1, ENTER CODE IN EACH MONTH OF METHOD USE OR "0" FOR NONUSE.</p> <p>ILLUSTRATIVE QUESTIONS FOR COLUMN 1:</p> <ul style="list-style-type: none"> <li>• When was the last time you used a method? Which method was that?</li> <li>• When did you start using that method? How long after the birth of (NAME)?</li> <li>• How long did you use the method then?</li> </ul> <p>IN COLUMN 2, ENTER CODES FOR DISCONTINUATION NEXT TO LAST MONTH OF USE. TO DO THIS, DETERMINE THE LAST MONTH OF METHOD USE. IN COLUMN 2 ENTER THE CODE FOR DISCONTINUATION .</p> <p>ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT.</p> <p>ILLUSTRATIVE QUESTIONS FOR COLUMN 2:</p> <ul style="list-style-type: none"> <li>• Why did you stop using the (METHOD)?</li> <li>• Did you become pregnant while using (METHOD), or did you stop to get pregnant, or did you stop for some other reason?</li> </ul> <p>IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK:</p> <p>“How many months did it take you to get pregnant after you stopped using (METHOD)?”</p> <p>AND ENTER '0' IN EACH SUCH MONTH IN COLUMN 1.</p> <p>NOTE: PAY PARTICULAR ATTENTION FOR LONG PERIODS OF NONUSE. THERE MAY BE SOME PERIODS OF METHOD USE OR A PREGNANCY DURING THESE PERIODS</p> <p>NOTE: AFTER COMPLETING THIS SECTION, ALL THE BOXES IN COLUMN 1 OF CALENDAR MUST BE FILLED. .</p>		

<p><b>326A</b></p>	<p>CHECK 315:  CIRCLE THE CODE OF CURRENTLY USED METHOD.</p>	<p>NOT ASKED ..... 00 → 331  TUBAL LIGATION ..... 01 → 328A  MALE STERILIZATION ..... 02  PILL ..... 03  IUD ..... 04  INJECTABLES ..... 05  IMPLANT/NORPLANT ..... 06  CONDOM ..... 07  FEMALE CONDOM ..... 08  DIAPHRAGM/FOAM/JELLY ..... 09  LACTATIONAL AMEN. METHOD ..... 11  RHYTHM ..... 12  WITHDRAWAL ..... 13   OTHER METHOD ..... 96</p>	
<p><b>326B</b></p>	<p>Would you like to use a different method of family planning than the one you are currently using?</p>	<p>YES ..... 1  NO ..... 2 → 327</p>	
<p><b>326C</b></p>	<p>Which method would you prefer to use?</p>	<p>TUBAL LIGATION ..... 01  MALE STERILIZATION ..... 02  PILL ..... 03  IUD ..... 04  INJECTABLES ..... 05  IMPLANT/NORPLANT ..... 06  CONDOM ..... 07  FEMALE CONDOM ..... 08  DIAPHRAGM/FOAM/JELLY ..... 09  LACTATIONAL AMEN. METHOD ..... 11  RHYTHM ..... 12  WITHDRAWAL ..... 13  EMERGENCY PILL ..... 14   ANY METHOD ..... 77  NOT SURE ..... 88   OTHER _____ 96  (SPECIFY)</p>	
<p><b>326E</b></p>	<p>What is the reason that you do not use (METHOD MENTIONED IN 326C)?</p>	<p>DOCTOR DOES NOT ADVISE ..... 01  EXPENSIVE ..... 02  NOT AVAILABLE/ACCESS PROBLEMS ..... 03  HARD TO FIND HERE ..... 04  DON'T KNOW HOW TO OBTAIN ..... 05  DON'T KNOW HOW TO USE IT ..... 06  HUSBAND OBJECTS ..... 07  RELIGIOUS REASONS ..... 08  HEALTH CONCERNS ..... 09  SIDE EFFECTS ..... 10   OTHER _____ 96  (SPECIFY)  DON'T KNOW ..... 98</p>	

327	<p>CHECK 315:</p> <p>CIRCLE THE CODE OF CURRENTLY USED METHOD.</p>	<p>NOT ASKED .....00 → 331</p> <p>TUBAL LIGATION .....01 → 328A</p> <p>MALE STERILIZATION .....02</p> <p>PILL .....03</p> <p>IUD .....04</p> <p>INJECTABLES .....05</p> <p>IMPLANT/NORPLANT .....06</p> <p>CONDOM .....07</p> <p>FEMALE CONDOM .....08</p> <p>DIAPHRAGM/FOAM/JELLY .....09</p> <p>LACTATIONAL AMEN. METHOD .....11 → 332</p> <p>RHYTHM .....12</p> <p>WITHDRAWAL .....13</p> <p>OTHER METHOD .....96 → 332</p>	
328	<p>Where did you obtain (METHOD)?</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p><b>PUBLIC SECTOR</b></p> <p>GOVERNMENT/SAMPLE HOSPITAL .....11</p> <p>MATERNITY HOUSE .....12</p> <p>MCHFP CENTRE.....13</p> <p>HEALTH CENTRE .....14</p> <p>HEALTH HOUSE .....15</p> <p>SSK HOSPITAL/DISPENSARY .....16</p> <p>OTHER _____ 19</p> <p>(SPECIFY)</p> <p><b>PRIVATE SECTOR</b></p> <p>PRIVATE HOSPITAL .....21</p> <p>PRIVATE POLYCLINIC .....22</p> <p>PRIVATE DOCTOR .....23</p> <p>PRIVATE MIDWIFE/NURSE .....24</p> <p>PHARMACY/MEDICAL STORE .....25</p> <p>OTHER _____ 29</p> <p>(SPECIFY)</p>	
328A	<p>Where did tubal ligation (or vasectomy) take place?</p>	<p>UNIVERSITY HOSPITAL .....31</p> <p>VOLUNTARY ORGANIZATION/ ASSOCIATION/FOUNDATION .....41</p> <p>MARKET/SHOP .....52</p> <p>RELATIVE/FRIEND/NEIGHBOUR .....53</p> <p>TRAD. MIDWIFE/MIDWIFE GRAN .....54</p> <p>OTHER _____ 96</p> <p>(SPECIFY)</p>	
329	<p>Do you know another place where you could have obtained (METHOD)?</p>	<p>YES .....1</p> <p>NO .....2 → 351</p>	
329A	<p>At the time of tubal ligation operation, did you know another place where you could have the operation?</p>		
330A	<p>SKIP TO 351.</p>		



<p><b>331</b></p>	<p><i>CHECK 227:</i></p> <p>NOT PREGNANT OR UNSURE <input type="checkbox"/></p>	<p>CURRENTLY PREGNANT <input type="checkbox"/></p>	<p>→ 332</p>
<p><b>331A</b></p>	<p><i>CHECK 250:</i></p> <p>CURRENTLY MARRIED <input type="checkbox"/></p>	<p>CURRENTLY NOT MARRIED <input type="checkbox"/></p>	<p>→ 332</p>
<p><b>331B</b></p>	<p>What is the main reason you are not using a method of contraception to avoid pregnancy?</p>	<p><b>FERTILITY-RELATED REASONS</b></p> <p>NOT HAVING SEX .....11</p> <p>INFREQUENT SEX .....12</p> <p>MENOPAUSAL/HYSTERECTOMY .....13</p> <p>SUBFECUND/INFECUND .....14</p> <p>HUSBAND IS INFECUND .....15</p> <p>POSTPARTUM/BREASTFEEDING .....16</p> <p>WANTS (MORE) CHILDREN .....17</p> <p><b>LACK OF KNOWLEDGE</b></p> <p>KNOWS NO METHOD .....21</p> <p>KNOWS NO SOURCE .....22</p> <p><b>METHOD-RELATED REASONS</b></p> <p>HEALTH CONCERNS .....31</p> <p>SIDE EFFECTS .....32</p> <p>LACK OF ACCESS/TOO FAR .....33</p> <p>COST TOO MUCH .....34</p> <p>INCONVENIENT TO USE .....35</p> <p>HUSBAND OPPOSED .....41</p> <p>RELIGIOUS REASONS .....51</p> <p>FATALISTIC.....61</p> <p>EMBARRASSED .....71</p> <p>OTHER _____ 96 (SPECIFY)</p> <p>DON'T KNOW .....98</p>	
<p><b>332</b></p>	<p>Do you know of a place where you can obtain a method of family planning?</p>	<p>YES .....1</p> <p>NO .....2</p>	<p>→ 351A</p>

333	Where is that? Any other place?  <hr style="width: 80%; margin: 0 auto;"/> <p style="text-align: center;">(NAME OF PLACE)</p>  <hr style="width: 80%; margin: 0 auto;"/> <p style="text-align: center;">(NAME OF PLACE)</p>	<b>PUBLIC SECTOR</b> GOVERNMENT/SAMPLE HOSPITAL .....A MATERNITY HOUSE .....B MCHFP CENTRE.....C HEALTH CENTRE .....D HEALTH HOUSE .....E SSK HOSPITAL/DISPENSARY .....F  OTHER _____ G (SPECIFY)
		<b>PRIVATE SECTOR</b> PRIVATE HOSPITAL .....H PRIVATE POLYCLINIC .....I PRIVATE DOCTOR .....J PRIVATE MIDWIFE/NURSE .....K PHARMACY/MEDICAL STORE .....L  OTHER _____ M (SPECIFY)
		UNIVERSITY HOSPITAL .....N  VOLUNTARY ORGANIZATION/ ASSOCIATION/FOUNDATION ..... O  MARKET/SHOP .....P RELATIVE/FRIEND/NEIGHBOUR .....R TRAD. MIDWIFE/MIDWIFE GRAN .....S  OTHER _____ U (SPECIFY)

351	<i>CHECK 250:</i> CURRENTLY MARRIED <input type="checkbox"/>	CURRENTLY NOT MARRIED <input type="checkbox"/> → 353
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351A	<i>CHECK 314 AND 314A:</i> CURRENTLY USING A METHOD <input type="checkbox"/>	CURRENTLY NOT USING A METHOD <input type="checkbox"/> → 356
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352	Are you planning to use any family planning method to postpone or avoid pregnancy in the following 12 months?	YES .....1 → 354 NO .....2 DON'T KNOW .....8
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353	Are you planning to use any family planning method to postpone or avoid pregnancy anytime in the future?	YES ..... 1 NO..... 2 DON'T KNOW .....8 → 355
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354	Which method do you prefer?	TUBAL LIGATION .....01 MALE STERILIZATION .....02 PILL .....03 IUD .....04 INJECTABLES .....05 IMPLANT/NORPLANT .....06 CONDOM ..... 07 FEMALE CONDOM .....08 DIAPHRAGM/FOAM/JELLY .....09 LACTATIONAL AMEN. METHOD .....11 RHYTHM ..... 12 WITHDRAWAL .....13  OTHER _____ 96 (SPECIFY)
		NOT SURE ..... 98

354A	SKIP TO 356.
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355	What is the main reason you don't want to use a method of contraception to avoid pregnancy ?	<p><b>FERTILITY-RELATED REASONS</b></p> <p>NOT HAVING SEX .....11</p> <p>INFREQUENT SEX .....12</p> <p>MENOPAUSAL/HYSTERECTOMY .....13</p> <p>SUBFECUND/INFECUND .....14</p> <p>HUSBAND IS INFECUND .....15</p> <p><b>LACK OF KNOWLEDGE</b></p> <p>KNOWS NO METHOD .....21</p> <p>KNOWS NO SOURCE .....22</p> <p><b>METHOD-RELATED REASONS</b></p> <p>HEALTH CONCERNS .....31</p> <p>SIDE EFFECTS .....32</p> <p>LACK OF ACCESS/TOO FAR .....33</p> <p>COST TOO MUCH .....34</p> <p>INCONVENIENT TO USE .....35</p> <p>HUSBAND OPPOSED .....41</p> <p>RELIGIOUS REASONS .....51</p> <p>FATALISTIC .....61</p> <p>EMBARRASSED .....71</p> <p>OTHER _____ 96</p> <p>(SPECIFY)</p> <p>DON'T KNOW .....98</p>	
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356	<p><i>KAPAK SAYFASINA BAKIN:</i></p> <p>CLUSTER NO IS EVEN AND HH NO IS EVEN <input type="checkbox"/></p> <p>CLUSTER NO IS ODD AND HH NO IS ODD <input type="checkbox"/></p>	<p>CLUSTER NO IS EVEN, AND HH NO IS ODD OR CLUSTER NO IS ODD, AND HH NO IS EVEN <input type="checkbox"/></p>	400
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357	<p>Is it appropriate or not that knowledge about the contraceptive methods is given at;</p> <p>Secondary school?</p> <p>High school?</p>	<table border="1"> <thead> <tr> <th></th> <th>APPROPRIATE</th> <th>INAPPROPRIATE</th> <th>DON'T KNOW</th> </tr> </thead> <tbody> <tr> <td>SECONDARY</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>HIGH</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		APPROPRIATE	INAPPROPRIATE	DON'T KNOW	SECONDARY	1	2	8	HIGH	1	2	8	
	APPROPRIATE	INAPPROPRIATE	DON'T KNOW												
SECONDARY	1	2	8												
HIGH	1	2	8												

358	Did you talk to any of your relatives or another person about contraceptive methods in last few months?	<p>YES .....1</p> <p>NO.....2</p>	365
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359	<p>With whom?</p> <p>Anyone else?</p> <p><i>CIRCLE ALL MENTIONED.</i></p>	<p>HUSBAND .....A</p> <p>MOTHER .....B</p> <p>SISTER .....D</p> <p>DAUGHTER .....F</p> <p>MOTHER IN LAW .....H</p> <p>.....</p> <p>SISTER IN LAW/BROTHER'S WIFE/ BROTHER IN LAW'S WIFE .....I</p> <p>FRIEND/RELATIVE .....K</p> <p>NEIGHBOUR .....L</p> <p>OTHER _____ U</p> <p>(SPECIFY)</p>	
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365	<p><i>CHECK 315:</i></p> <p>CURRENTLY USING A METHOD <input type="checkbox"/></p> <p>CURRENTLY NOT USING A METHOD/ NOT ASKED <input type="checkbox"/></p>		368
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366	Who decided to use the current method you are using? You, your husband, or together?	<p>HERSELF .....1</p> <p>HUSBAND .....2</p> <p>TOGETHER .....3</p>	
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368	In your opinion, is it all right or not for religion to use contraceptive methods?	YES, APPROPRIATE TO RELIGION .....1 SOME METHODS ARE INAPPROPRIATE .....2 NO, INAPPROPRIATE TO RELIGION .....3 NOT BELIEVE IN REL., HAS NO REL. ....4 DON'T KNOW .....8	→ 370 → 370
369	Which contraceptive method(s) do you think that are inappropriate to religion?  What else?  <i>RECORD ALL MENTIONED.</i>	TUBAL LIGATION .....A MALE STERILIZATION .....B PILL .....C IUD .....D INJECTABLES .....E IMPLANT/NORPLANT .....F CONDOM .....G FEMALE CONDOM .....H DIAPHRAGM/FOAM/JELLY .....I LACTATIONAL AMEN. METHOD .....J RHYTHM .....K WITHDRAWAL .....L EMERGENCY PILL .....M  OTHER _____ U (SPECIFY)  INDUCED ABORTION .....O	
370	<i>CHECK 250:</i>  CURRENTLY MARRIED <input type="checkbox"/> CURRENTLY NOT MARRIED <input type="checkbox"/>		→ 372
371	Does your husband thinks that any of the contraceptive methods or family planning in general is appropriate to religion or inappropriate?	YES, APPROPRIATE ..... 1 THINKS SOME METHODS ARE INAPPROPRIATE TO RELIGION ..... 2 NO, INAPPROPRIATE .....3 HUSBAND HAS NO RELIGION.....4 DON'T KNOW .....8	
372	Do you approve of induced abortion or not?	APPROVE .....1 DISAPPROVE .....2 DEPENDS ON SITUATION .....3 DON'T KNOW .....8	
373	Think that you are having an unwanted pregnancy in the future. Do you prefer to have induced abortion?	YES ..... 1 NO .....2 DON'T KNOW .....8	

## SECTION 4A. PREGNANCY AND BREASTFEEDING

<b>400</b>	<p><i>CHECK 225:</i></p> <p>ONE OR MORE LIVE BIRTHS SINCE JAN. 1998 <input type="checkbox"/></p> <p style="text-align: right;">NO LIVE BIRTHS SINCE JAN. 1998 <input type="checkbox"/></p> <p style="text-align: right; margin-right: 20px;">→ 601</p>		
<b>401S</b>	<p><i>RECORD TIME</i></p> <p style="text-align: right;">HOUR – MINUTE..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>		
<b>402</b>	<p><i>ENTER THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1998 IN THE TABLE ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH.</i></p> <p><i>(IF THERE ARE MORE THAN 2 BIRTHS USE ADDITIONAL QUESTIONNAIRES- DO NOT USE THE LAST BIRTH COLUMN IN THE ADDITIONAL QUESTIONNAIRE).</i></p> <p>I would like to ask you some more questions about the health of all your children born in the past five years. We will talk about one child at a time.</p>		
<b>403</b>	<p>LAST BIRTH</p> <p>LINE NUMBER..... <input type="text"/> <input type="text"/></p>	<p>NEXT TO LAST BIRTH</p> <p>LINE NUMBER..... <input type="text"/> <input type="text"/></p>	
<b>404</b>	<p>FROM Q212</p> <p>FROM Q216</p>	<p>NAME.....</p> <p>ALIVE <input type="checkbox"/>      DEAD <input type="checkbox"/></p>	<p>NAME.....</p> <p>ALIVE <input type="checkbox"/>      DEAD <input type="checkbox"/></p>
<b>405</b>	<p>At the time you became pregnant with ..... did you want to become pregnant then, did you want to wait until later, or did you want no (more) children at all ?</p>	<p>THEN..... <input type="checkbox"/> 1 407A ←</p> <p>LATER ..... 2</p> <p>NO MORE..... <input type="checkbox"/> 3 407A ←</p>	<p>THEN..... 1 407A</p> <p>LATER ..... 2</p> <p>NO MORE..... <input type="checkbox"/> 3 407A ←</p>
<b>406</b>	<p>How much longer would you like to have waited?</p>	<p>MONTHS.....1 <input type="text"/> <input type="text"/></p> <p>YEARS.....2 <input type="text"/> <input type="text"/></p> <p>DON'T KNOW .....998</p>	<p>MONTHS.....1 <input type="text"/> <input type="text"/></p> <p>YEARS.....2 <input type="text"/> <input type="text"/></p> <p>DON'T KNOW .....998</p>
<b>407A</b>	<p>When you were pregnant with .....did you see anyone for antenatal care for this pregnancy?</p> <p><i>(IF YES) Whom did you see?</i></p> <p style="text-align: center;">Anyone else?</p> <p><i>PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.</i></p>	<p><b>HEALTH PROFESSIONAL</b></p> <p>DOCTOR ..... A</p> <p>NURSE/MIDWIFE ..... B</p> <p><b>OTHER PERSON</b></p> <p>TRAD. MIDWIFE/GRAN ..... D</p> <p>OTHER ..... U (SPECIFY)</p> <p>NO ONE..... <input type="checkbox"/> Y 407C ←</p>	<p><b>HEALTH PROFESSIONAL</b></p> <p>DOCTOR ..... A</p> <p>NURSE/MIDWIFE ..... B</p> <p><b>OTHER PERSON</b></p> <p>TRAD. MIDWIFE/GRAN ..... D</p> <p>OTHER ..... U (SPECIFY)</p> <p>NO ONE..... <input type="checkbox"/> Y 407C ←</p>

		LAST BIRTH NAME _____	NEXT LAST BIRTH NAME _____
407B	Where did you go for antenatal care?  <i>RECORD ALL MENTIONED.</i>  _____ (NAME OF PLACE: LAST BIRTH)  _____ (NAME OF PLACE: NEXT TO LAST BIRTH)	<b>PUBLIC SECTOR</b> GOVT./SAMPLE HOSPITAL..... A MATERNITY HOUSE..... B MCHFP CENTER..... C HEALTH CENTER..... D HEALTH HOUSE..... E SSK HOSPITAL/DISPANSERY ..... F  OTHER _____ G (SPECIFY)	<b>PUBLIC SECTOR</b> GOVT./SAMPLE HOSPITAL..... A MATERNITY HOUSE..... B MCHFP CENTER..... C HEALTH CENTER..... D HEALTH HOUSE..... E SSK HOSPITAL/DISPANSERY ..... F  OTHER _____ G (SPECIFY)
		<b>PRIVATE SECTOR</b> PRIVATE HOSP..... H PRIVATE POLYCLINIC..... I PRIVATE DOCTOR ..... J PRIVATE NURSE/MIDWIFE..... K  OTHER _____ M (SPECIFY)	<b>PRIVATE SECTOR</b> PRIVATE HOSP..... H PRIVATE POLYCLINIC..... I PRIVATE DOCTOR ..... J PRIVATE NURSE/MIDWIFE..... K  OTHER _____ M (SPECIFY)
		UNIVERSITY HOSPITAL..... N	UNIVERSITY HOSPITAL..... N
		VOLUNATRY ORGANIZATION/ FOUNDATION HOSPITAL/CLINIC... O	VOLUNATRY ORGANIZATION/ FOUNDATION HOSPITAL/CLINIC... O
		OTHER _____ U (SPECIFY)	OTHER _____ U (SPECIFY)
		<i>SKIP TO 408.</i>	<i>SKIP TO 408.</i>
407C	During your pregnancy with .....why did you not receive antenatal care?  <i>RECORD ALL MENTIONED.</i>	NO NEED ..... A ACCESSIBILITY PROBLEMS ..... B DISTRUST OF INSTITUTIONS OR PERSONNEL ..... C PROBLEMS IN USING HEALTH INSTITUTIONS ..... D TRADITIONS ..... E MONETARY REASONS ..... F POOR SERVICE..... G DON'T KNOW WHERE ..... H  OTHER _____ U (SPECIFY)	NO NEED ..... A ACCESSIBILITY PROBLEMS ..... B DISTRUST OF INSTITUTIONS OR PERSONNEL ..... C PROBLEMS IN USING HEALTH INSTITUTIONS ..... D TRADITIONS ..... E MONETARY REASONS ..... F POOR SERVICE..... G DON'T KNOW WHERE ..... H  OTHER _____ U (SPECIFY)
		DON'T KNOW..... X	DON'T KNOW..... X
		<i>SKIP TO 409F.</i>	<i>SKIP TO 409F.</i>
408	How many months pregnant were you with ..... when you first received antenatal care?	MONTH..... <input type="text"/> <input type="text"/>  DON'T KNOW .....98	MONTH..... <input type="text"/> <input type="text"/>  DON'T KNOW .....98

		LAST BIRTH NAME _____	NEXT LAST BIRTH NAME _____																																																												
<b>409A</b>	During your pregnancy with ..... when you went for the first time for antenatal care did you go because there was a problem or was it an ordinary check-up?	THERE WAS A PROBLEM..... 1 ORDINARY CONTROL..... 2  OTHER _____ 7 (SPECIFY)  DON'T KNOW..... 8	THERE WAS A PROBLEM..... 1 ORDINARY CONTROL..... 2  OTHER _____ 7 (SPECIFY)  DON'T KNOW..... 8																																																												
<b>409B</b>	How many times did you receive antenatal care during your pregnancy with .....?	NO. OF TIMES..... <input type="text"/> <input type="text"/>  DON'T KNOW ..... 98	NO. OF TIMES..... <input type="text"/> <input type="text"/>  DON'T KNOW ..... 98																																																												
<b>409C</b>	How many months pregnant were you with ..... when you received antenatal care for the last time?	MONTH..... <input type="text"/> <input type="text"/>  DON'T KNOW .....98	MONTH..... <input type="text"/> <input type="text"/>  DON'T KNOW .....98																																																												
<b>409D</b>	In any of your antenatal checks, were you:  Weighed?  Measured?  Blood pressure?  Blood test?  Urine test?  Abdomen measured?  Listened to baby's heartbeat?  Ultrasound?  Internal examination?	<table style="width:100%; border:none;"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>WEIGHED.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>MEASURED.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>BLOOD PRESSURE.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>BLOOD TEST.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>URINE TEST.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>ABDOMEN MEASURED.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>LISTENED TO BABY.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>ULTRASOUND.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>INTERNAL EXAM.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	WEIGHED.....	1	2	MEASURED.....	1	2	BLOOD PRESSURE.....	1	2	BLOOD TEST.....	1	2	URINE TEST.....	1	2	ABDOMEN MEASURED.....	1	2	LISTENED TO BABY.....	1	2	ULTRASOUND.....	1	2	INTERNAL EXAM.....	1	2	<table style="width:100%; border:none;"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>WEIGHED.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>MEASURED.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>BLOOD PRESURE.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>BLOOD TEST.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>URINE TEST.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>ABDOMEN MEASURED.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>LISTENED TO BABY.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>ULTRASOUND.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>INTERNAL EXAM.....</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		YES	NO	WEIGHED.....	1	2	MEASURED.....	1	2	BLOOD PRESURE.....	1	2	BLOOD TEST.....	1	2	URINE TEST.....	1	2	ABDOMEN MEASURED.....	1	2	LISTENED TO BABY.....	1	2	ULTRASOUND.....	1	2	INTERNAL EXAM.....	1	2
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<b>409F</b>	Have you taken any of the following during ..... 's pregnancy?  Iron tablets?  Vitamins?  Follic acid?	<table style="width:100%; border:none;"> <tbody> <tr> <td>YES.....</td> <td>1</td> </tr> <tr> <td>NO.....</td> <td>2</td> </tr> <tr> <td>YES.....</td> <td>1</td> </tr> <tr> <td>NO.....</td> <td>2</td> </tr> <tr> <td>YES.....</td> <td>1</td> </tr> <tr> <td>NO.....</td> <td>2</td> </tr> </tbody> </table>	YES.....	1	NO.....	2	YES.....	1	NO.....	2	YES.....	1	NO.....	2	<table style="width:100%; border:none;"> <tbody> <tr> <td>YES.....</td> <td>1</td> </tr> <tr> <td>NO.....</td> <td>2</td> </tr> <tr> <td>YES.....</td> <td>1</td> </tr> <tr> <td>NO.....</td> <td>2</td> </tr> <tr> <td>YES.....</td> <td>1</td> </tr> <tr> <td>NO.....</td> <td>2</td> </tr> </tbody> </table>	YES.....	1	NO.....	2	YES.....	1	NO.....	2	YES.....	1	NO.....	2																																				
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<b>410</b>	How did ..... 's birth occur? Was it vaginal birth or caesarean section?	CAESAREAN ..... 1 NORMAL (VAGINAL) BIRTH..... 2 411 ←	CAESAREAN ..... 1 NORMAL (VAGINAL) BIRTH..... 2 411 ←																																																												

		LAST BIRTH NAME _____	NEXT LAST BIRTH NAME _____
410A	Who decided to be ..... 's caesarean section birth?	HERSELF ..... 1 DOCTOR ..... 2 HERSELF AND DOCTOR..... 3	HERSELF ..... 1 DOCTOR ..... 2 HERSELF AND DOCTOR..... 3
410B	What was the main reason for having a caesarean birth?	MOTHER HEALTH ..... 01 CHILD HEALTH ..... 02 MOTHER AND CHILD HEALTH ..... 03 PREVIOUS BIRTH WAS CAESAREAN ..... 04 TWIN/PLURAL BIRTH ..... 05 CHILD TOO BIG..... 06 MOTHER'S CHOICE ..... 07 VAGINAL BIRTH FEAR..... 08  OTHER _____ 96 (SPECIFY)	MOTHER HEALTH ..... 01 CHILD HEALTH ..... 02 MOTHER AND CHILD HEALTH ..... 03 PREVIOUS BIRTH WAS CAESAREAN ..... 04 TWIN/PLURAL BIRTH ..... 05 CHILD TOO BIG..... 06 MOTHER'S CHOICE ..... 07 VAGINAL BIRTH FEAR..... 08  OTHER _____ 96 (SPECIFY)
		SKIP TO 412.	SKIP TO 412.
411	Was ..... 's birth performed with an episiotomy through?	YES..... 1 NO..... 2	YES..... 1 NO..... 2
412	Where did you give birth to .....?  <hr/> (NAME OF PLACE: LAST BIRTH)  <hr/> (NAME OF PLACE: NEXT TO LAST BIRTH)	<b>HOME</b> WOMAN'S HOME..... 01 OTHER HOME..... 02  <b>PUBLIC SECTOR</b> GOVT./SAMPLE HOSPITAL..... 11 MATERNITY HOUSE..... 12 MCHFP CENTER..... 13 HEALTH CENTER..... 14 HEALTH HOUSE..... 15 SSK HOSPITAL/DISPANSERY..... 16  OTHER _____ 19 (SPECIFY)  <b>PRIVATE SECTOR</b> PRIVATE HOSPITAL..... 21 PRIVATE POLYCLINIC..... 22 PRIVATE DOCTOR..... 23 PRIVATE NURSE/MIDWIFE..... 24  OTHER _____ 29 (SPECIFY)  UNIVERSITY HOSPITAL..... 31  VOLUNATRY ORGANIZATION/ FOUNDATION HOSPITAL/CLINIC... 41  OTHER _____ 96 (SPECIFY)	<b>HOME</b> WOMAN'S HOME..... 01 OTHER HOME..... 02  <b>PUBLIC SECTOR</b> GOVT./SAMPLE HOSPITAL..... 11 MATERNITY HOUSE..... 12 MCHFP CENTER..... 13 HEALTH CENTER..... 14 HEALTH HOUSE..... 15 SSK HOSPITAL/DISPANSERY..... 16  OTHER _____ 19 (SPECIFY)  <b>PRIVATE SECTOR</b> PRIVATE HOSPITAL..... 21 PRIVATE POLYCLINIC..... 22 PRIVATE DOCTOR..... 23 PRIVATE NURSE/MIDWIFE..... 24  OTHER _____ 29 (SPECIFY)  UNIVERSITY HOSPITAL..... 31  VOLUNATRY ORGANIZATION/ FOUNDATION HOSPITAL/CLINIC.... 41  OTHER _____ 96 (SPECIFY)





		LAST BIRTH NAME _____	NEXT LAST BIRTH NAME _____
419	Has your period returned since the birth of .....? .....?	YES.....1 421 ← 2 NO.....2 422 ← 1	
420	Did your period return between the birth of ..... and your next pregnancy?		YES.....1 NO.....2 424 ← 1
421	For how many months after birth of ..... did you not have a period?	MONTH..... DON'T KNOW .....98	MONTH..... DON'T KNOW .....98
422	<b>CHECK 227:</b> RESPONDENT CURRENTLY PREGNANT?	NOT PREGNANT <input type="checkbox"/> PREGNANT OR UNSURE <input type="checkbox"/> 424 ↓	
423	Have you resumed sexual relations since the birth of .....?	YES.....1 NO.....2 425 ← 2	
424	For how many months after the birth of ..... did you not have sexual relations?	MONTH..... DON'T KNOW ..... 98	MONTH..... DON'T KNOW ..... 98
425	Did you ever breastfeed .....?	YES.....1 NO.....2 431 ← 2	YES.....1 NO.....2 431 ← 2
426	How long after birth did you first put ..... to breast?  <i>IF LESS THAN 1 HOUR, RECORD '00'. IF LESS THAN 24 HOURS, RECORD HOURS, OTHERWISE, RECORD DAYS.</i>	IMMEDIATELY.....000 HOUR.....1 DAYS.....2	IMMEDIATELY.....000 HOUR.....1 DAYS.....2
426A	In the first three days after delivery, before your milk began flowing regularly, was ..... given anything to drink other than breast milk?	YES.....1 NO.....2 427 ← 2	YES.....1 NO.....2 427 ← 2
426B	What was given to .....? Anything else?  <i>RECORD ALL MENTIONED.</i>	MILK (OTHER THAN BREAST MILK)... A WATER ..... B SUGAR WATER ..... C SALT-SUGAR-WATER SOLUTION ..... D FRUIT JUICE..... E BABY FORMULA ..... F TEA ..... G JUICE OF COOKED MEAL ..... H HONEY ..... I  OTHER _____ U (SPECIFY).	MILK (OTHER THAN BREAST MILK)... A WATER ..... B SUGAR WATER ..... C SALT-SUGAR-WATER SOLUTION ..... D FRUIT JUICE..... E BABY FORMULA ..... F TEA ..... G JUICE OF COOKED MEAL ..... H HONEY ..... I  OTHER _____ U (SPECIFY).



		LAST BIRTH NAME _____	NEXT LAST BIRTH NAME _____																																																																																																																								
435	At any time in last 24 hours was ..... given any of the following?  Plain water? Sugar water? Juice? Tea? Baby formula? Yogurt? Pudding? Juice of cooked meal? Turkish delight? Bottled/Boxed milk? Fresh milk? Soup? Other liquid? Any other solid or semi solid foods?	<table border="0"> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>PLAIN WATER.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SUGAR WATER.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>JUICE.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>TEA.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BABY FORMULA.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>YOGURT.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>PUDDING.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>JUICE OF COOKED MEAL.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>TURKISH DELIGHT.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BOTTLED/BOXED MILK.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>FRESH MILK.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SOUP.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>OTHER LIQUID.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SOLID/SEMI SOLID FOODS....</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	PLAIN WATER.....	1	2	8	SUGAR WATER.....	1	2	8	JUICE.....	1	2	8	TEA.....	1	2	8	BABY FORMULA.....	1	2	8	YOGURT.....	1	2	8	PUDDING.....	1	2	8	JUICE OF COOKED MEAL.....	1	2	8	TURKISH DELIGHT.....	1	2	8	BOTTLED/BOXED MILK.....	1	2	8	FRESH MILK.....	1	2	8	SOUP.....	1	2	8	OTHER LIQUID.....	1	2	8	SOLID/SEMI SOLID FOODS....	1	2	8	<table border="0"> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>PLAIN WATER.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SUGAR WATER.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>JUICE.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>TEA.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BABY FORMULA.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>YOGURT.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>PUDDING.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>JUICE OF COOKED MEAL.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>TURKISH DELIGHT.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>BOTTLED/BOXED MILK.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>FRESH MILK.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SOUP.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>OTHER LIQUID.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>SOLID/SEMI SOLID FOODS....</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	PLAIN WATER.....	1	2	8	SUGAR WATER.....	1	2	8	JUICE.....	1	2	8	TEA.....	1	2	8	BABY FORMULA.....	1	2	8	YOGURT.....	1	2	8	PUDDING.....	1	2	8	JUICE OF COOKED MEAL.....	1	2	8	TURKISH DELIGHT.....	1	2	8	BOTTLED/BOXED MILK.....	1	2	8	FRESH MILK.....	1	2	8	SOUP.....	1	2	8	OTHER LIQUID.....	1	2	8	SOLID/SEMI SOLID FOODS....	1	2	8
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		<i>GO BACK TO 405 IN NEXT CLOUMN: OR, IF NO MORE BIRTHS, GO TO 440.</i>	<i>GO BACK TO 405 IN AN ADDITIONAL QUESTIONNAIRE; OR IF NO MORE BIRTH, GO TO 440.</i>																																																																																																																								

### SECTION 4B. IMMUNIZATION AND HEALTH

<b>440</b>	<p>ENTER LINE NUMBER, NAME SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1998 IN THE TABLE. ASK QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH.</p> <p>(IF THERE ARE MORE THAN 2 BIRTHS USE ADDITIONAL QUESTIONNAIRES – DO NOT USE THE LAST BIRTH COLUMN IN THE ADDITIONAL QUESTIONNAIRE, USE "NEXT TO LAST BIRTH" CLOUMN' AND WRITE "SECOND ONE BEFORE THE LAST BIRTH"</p>						
<b>441</b>	LINE NUMBER FROM Q212.	LAST BIRTH			NEXT TO LAST BIRTH		
		LINE NO..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>			LINE NO..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>		
<b>442</b>	<p>CHECK 212:</p> <p>CHECK 216:</p>	<p>NAME _____</p> <p>ALIVE <input style="width: 15px; height: 15px;" type="checkbox"/>      DEAD <input style="width: 15px; height: 15px;" type="checkbox"/></p> <p style="text-align: center;">↓</p> <p style="text-align: center;">(IF IF NO MORE BIRTHS GO TO 465S IF THERE IS MORE BIRTHS GO TO 442 IN NEXT COLUMN),</p>			<p>NAME _____</p> <p>ALIVE <input style="width: 15px; height: 15px;" type="checkbox"/>      DEAD <input style="width: 15px; height: 15px;" type="checkbox"/></p> <p style="text-align: center;">↓</p> <p style="text-align: center;">IF NO MORE BIRTHS, GO TO 465S IF THERE IS MORE BIRTHS GO TO 442 IN ADDITIONAL QUESTIONNAIRE.</p>		
<b>443</b>	<p>Do you have a card where .....’s vaccination are written down?</p> <p>(IF YES) May I see it please?</p>	<p>YES, SEEN ..... 1</p> <p>YES, NOT SEEN ..... 2</p> <p style="text-align: right;">447 ←</p> <p>NO CARD ..... 3</p>			<p>YES, SEEN ..... 1</p> <p>YES, NOT SEEN ..... 2</p> <p style="text-align: right;">447 ←</p> <p>NO CARD ..... 3</p>		
<b>445</b>	<p>(1) COPY VACCINATION DATES FOR EACH VACCINE FROM THE CARD. PAY ATTENTION TO APPOINTMENT DAYS AND THE CONSISTENCY OF VACCINATION DATES.</p> <p>(2) WRITE '44' IN THE DAY CLOUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN BUT NO DATE IS RECORDED.</p>						
		DAY	MO	YEAR	DAY	MO	YEAR
BCG	BCG	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	BCG	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
Polio 1	P1.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	P1.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
Polio 2	P2.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	P2.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
Polio 3	P3.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	P3.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
DPT 1	D1.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	D1.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
DPT 2	D2.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	D2.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
DPT 3	D3.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	D3.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
MEASLES	KIZ	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	KIZ	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
Hepatitis B 1	H1.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	H1.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
Hepatitis B 2	H2.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	H2.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>
Hepatitis B 3	H3.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>	H3.	<input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/>

		LAST BIRTH	NEXT TO LAST BIRTH
		LINE NO..... <input type="text"/> <input type="text"/>	LINE NO..... <input type="text"/> <input type="text"/>
<b>446</b>	Has ..... received any vaccination that are not recorded on this card?  <i>RECORD 'YES' IF ONLY RESPONDENT MENTIONS BCG, POLIO 1 - 3, DPT 1 - 3, MEASLES AND/OR HEPATITUES B 1 - 3 .</i>	YES..... 1 NO..... 2 454 ← DON'T KNOW..... 8	YES ..... 1 NO ..... 2 454 ← DON'T KNOW ..... 8
<b>446A</b>		<i>PROBE VACCINATIONS AT 445, RECORD '66' TO DAY SECTION OF THAT VACCINATION.  SKIP TO 454</i>	<i>PROBE VACCINATIONS AT 445, RECORD '66' TO DAY SECTION OF THAT VACCINATION.  SKIPTO 454</i>
<b>447</b>	Did..... ever receive any vaccinations to prevent him/her from getting infectious diseases?	YES ..... 1 NO ..... 2 454 ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 454 ← DON'T KNOW ..... 8
<b>448</b>	Please tell me if ..... received any of the following vaccinations?		
<b>448A</b>	<b>BCG:</b> A vaccination against tuberculosis, that is an injection in the left arm or shoulder that caused a scar?	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
<b>448B</b>	<b>Polio vaccination:</b> That is drops in the mouth?	YES ..... 1 NO ..... 2 448E ← DON'T KNOW..... 8	YES ..... 1 NO ..... 2 448E ← DON'T KNOW..... 8
<b>448C</b>	How many times?	NUMBER OF TIMES..... <input type="text"/>	NUMBER OF TIMES..... <input type="text"/>
<b>448E</b>	<b>DPT vaccination:</b> This vaccination includes diphtheria, whooping-cough and tetanus. And it is usually given at the same time as polio drops.	YES ..... 1 NO ..... 2 448G ← DON'T KNOW..... 8	YES ..... 1 NO ..... 2 448G ← DON'T KNOW..... 8
<b>448F</b>	How many times?	NUMBER OF TIMES..... <input type="text"/>	NUMBER OF TIMES..... <input type="text"/>
<b>448G</b>	<b>Measles vaccination?</b>	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 DON'T KNOW ..... 8
<b>448I</b>	<b>Hepatitis B vaccination?</b>	YES ..... 1 NO ..... 2 454 ← DON'T KNOW ..... 8	YES ..... 1 NO ..... 2 454 ← DON'T KNOW ..... 8
<b>448J</b>	How many times?	NUMBER OF TIMES..... <input type="text"/>	NUMBER OF TIMES..... <input type="text"/>

		LAST BIRTH NAME _____	LAST BIRTH NAME _____
454	Did .....have an illness with fever in last 15 days?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
455	Did .....have illness with cough in last 15 days?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
456	When ..... had illness with cough, did he/she breathe faster than usual with short, rapid breathe or did he/she have problems in breathing?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
457	CHECK 454 AND 455 HAD FEVER OR COUGH?	HAD ONE OR BOTH <input type="checkbox"/> NO <input type="checkbox"/> SKIP TO 464	HAD ONE OR BOTH <input type="checkbox"/> NO <input type="checkbox"/> SKIP TO 464
458	Did you seek advice or treatment for fever/cough?	YES.....1 NO.....2 DON'T KNOW.....8	YES.....1 NO.....2 DON'T KNOW.....8
459	Where did you seek advice/treatment? Else?  <i>RECORD ALL MENTIONED.</i>	<b>PUBLIC SECTOR</b> GOVT./SAMPLE HOSP ..... A MATERNITY HOUSE ..... B MCHFP CENTER ..... C HEALTH CENTER ..... D HEALTH HOUSE ..... E SSK HOSP/DISPANSERY ..... F  OTHER _____ G (SPECIFY) <b>PRIVATE SECTOR</b> PRIVATE HOSP ..... H PRIVATE CLINIC ..... I PRIVATE DOCTOR ..... J  PRIVATE NURSE/MIDWIFE ..... K PHARMACY/MEDICAL STORE ..... L  OTHER _____ M (SPECIFY) ÜNİVERSITY HOSPITAL ..... N VOLUNTEER ORGANIZATION/ ASSOC./FOUNDATIONS ..... O  MARKET/SHOP..... P RELATIVE/FRIENDS/NEIGHBOUR ..... R TRAD. MIDWIFE/MIDWIFEGRAN..... S  OTHER _____ U (SPECIFY)	<b>PUBLIC SECTOR</b> GOVT./SAMPLE HOSP ..... A MATERNITY HOUSE ..... B MCHFP CENTER ..... C HEALTH CENTER ..... D HEALTH HOUSE ..... E SSK HOSP/DISPANSERY ..... F  OTHER _____ G (SPECIFY) <b>PRIVATE SECTOR</b> PRIVATE HOSP ..... H PRIVATE CLINIC ..... I PRIVATE DOCTOR ..... J  PRIVATE NURSE/MIDWIFE ..... K PHARMACY/MEDICAL STORE ..... L  OTHER _____ M (SPECIFY) ÜNİVERSITY HOSPITAL ..... N VOLUNTEER ORGANIZATION/ ASSOC./FOUNDATIONS ..... O  MARKET/SHOP..... P RELATIVE/FRIENDS/NEIGHBOUR ..... R TRAD. MIDWIFE/MIDWIFEGRAN..... S  OTHER _____ U (SPECIFY)





## SECTION 6. FERTILITY PREFERENCES

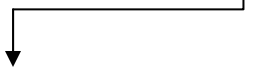
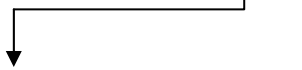
<b>601</b>	<i>CHECK COVER PAGE</i>	<p style="text-align: center;">CLUSTER NO EVEN AND HH NO. EVEN <input type="checkbox"/></p> <p style="text-align: center;">CLUSTER NO ODD AND HH NO. ODD <input type="checkbox"/></p>	<p style="text-align: center;">CLUSTER NO EVEN, AND HH NO. ODD OR CLUSTER NO ODD, AND HH NO. EVEN <input type="checkbox"/></p>	701	
<b>601A</b>	<i>CHECK 250:</i>	<p style="text-align: center;">CURRENTLY MARRIED <input type="checkbox"/></p>	<p style="text-align: center;">CURRENTLY NOT MARRIED <input type="checkbox"/></p>	612	
<b>601A</b>	<i>CHECK 314 AND 314A:</i>	<p style="text-align: center;">WOMAN NOT HAD TUBAL LIGATION OR HUSBAND NOT STERILIZED <input type="checkbox"/></p>	<p style="text-align: center;">WOMAN HAD TUBAL LIGATION OR HUSBAND STERILIZED <input type="checkbox"/></p>	612	
<b>602</b>	<i>CHECK 227:</i>	<p style="text-align: center;">NOT PREGNANT OR UNSURE <input type="checkbox"/></p> <p style="text-align: center;">CURRENTLY PREGNANT <input type="checkbox"/></p> <p>Now I have some questions about the future. Would you like to have(a/another) child or would you prefer not to have any (more) children?</p>	<p style="text-align: center;">CURRENTLY PREGNANT <input type="checkbox"/></p> <p>Now I have some questions about the future. After the child you are expecting would you like to have another child or would you prefer not to have any more children?</p>	<p>HAVE (A/ANOTHER) CHILD.....1</p> <p>NO MORE/NONE .....2</p> <p>SAYS SHE CAN'T GET PREGNANT .....3</p> <p>UNDECIDED/DON'T KNOW.....8</p>	612
<b>602A</b>	<i>CHECK 227:</i>	<p style="text-align: center;">NOT PREGNANT/ OR UNSURE <input type="checkbox"/></p> <p>How many more children would you like to have in the future?</p>	<p style="text-align: center;">CURRENTLY PREGNANT <input type="checkbox"/></p> <p>How many more children would you like to have in the future not counting the one you are currently pregnant with?</p>	<p>NUMBER ..... <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/></p> <p>OTHER ANSWERS _____ 96 (SPECIFY)</p>	
<b>603</b>	<i>CHECK 227:</i>	<p style="text-align: center;">NOT PREGNANT/ OR UNSURE <input type="checkbox"/></p> <p>How long would you like to wait from now before the birth of (a/another) child?</p>	<p style="text-align: center;">CURRENTLY PREGNANT <input type="checkbox"/></p> <p>After the child you are expecting now, how long would you like to wait before the birth of another child?</p>	<p>MONTHS .....1 <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/></p> <p>YEARS .....2 <input style="width: 20px;" type="text"/> <input style="width: 20px;" type="text"/></p> <p>SOON/NOW..... 993</p> <p>SAYS SHE CAN'T GET PREGNANT.....994</p> <p>OTHER _____ 996 (SPECIFY)</p> <p>DON'T KNOW .....998</p>	612

612

CHECK 216:

HAS LIVING CHILDREN

NO LIVING CHILDREN



If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?

If you could choose exactly the number of children to have in your whole life, how many would that be?

NUMBER .....

OTHER \_\_\_\_\_ 96  
(SPECIFY)

701

613

How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter?

BOYS

NUMBER .....

OTHER \_\_\_\_\_ 96  
(SPECIFY)

GIRLS

NUMBER .....

OTHER \_\_\_\_\_ 96  
(SPECIFY)

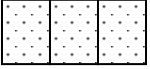
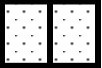
EITHER

NUMBER .....

OTHER \_\_\_\_\_ 96  
(SPECIFY)

## SECTION 7A. HUSBAND'S BACKGROUND


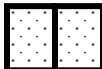
<b>701</b>	<p><i>CHECK 250:</i></p> <p>CURRENTLY MARRIED <input type="checkbox"/></p> <p>CURRENTLY NOT MARRIED <input type="checkbox"/></p>	<p style="text-align: right;">→ 703</p>
<b>702</b>	How old is your husband?	<p>COMPLETED AGE ..... <input style="width: 40px;" type="text"/></p>
<b>703</b>	Did your (last) husband ever attend school?	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p> <p style="text-align: right;">→ 706A</p>
<b>704</b>	What was the highest level of school he attended?	<p>PRIMARY SCHOOL ..... 1</p> <p>SECONDARY SCHOOL ..... 2</p> <p>PRIMARY EDUCATION ..... 3</p> <p>HIGH SCHOOL ..... 4</p> <p>UNIVERSITY ..... 5</p> <p>GRADUATE ..... 6</p> <p>DON'T KNOW ..... 8</p> <p style="text-align: right;">→ 706A</p>
<b>705</b>	What is the highest grade he completed at that level?	<p>GRADE ..... <input style="width: 40px;" type="text"/></p> <p>DON'T KNOW ..... 96</p>
<b>705A</b>	Did he graduate from that school (Did he received diploma)?	<p>YES ..... 1</p> <p>NO ..... 2</p> <p>DON'T KNOW ..... 8</p>
<b>706A</b>	<p><i>CHECK 250:</i></p> <p>CURRENTLY MARRIED <input type="checkbox"/></p> <p>CURRENTLY NOT MARRIED <input type="checkbox"/></p>	<p style="text-align: right;">→ 706R</p>
<b>706B</b>	<p><i>CHECK COVER PAGE:</i></p> <p>HUSBAND NOT IN HH LIST <input type="checkbox"/></p> <p>HUSBAND WAS RECORDED IN HH LIST <input type="checkbox"/></p>	<p style="text-align: right;">→ 706R</p>
<b>706C</b>	Did your husband work in a job in last week whether paid or unpaid?	<p>YES ..... 1</p> <p>NO ..... 2</p> <p style="text-align: right;">→ 706G</p>
<b>706D</b>	As you know, some people do temporary jobs, they work in family farm or business paid or unpaid. Did your husband work in such job?	<p>YES ..... 1</p> <p>NO ..... 2</p> <p style="text-align: right;">→ 706G</p>
<b>706E</b>	Does he have a job that he usually work?	<p>YES ..... 1</p> <p>NO ..... 2</p> <p style="text-align: right;">→ 706N</p>

706F	Why did not your husband work in last week?	HOLIDAY/ON VACATION.....01 SICK/UNABLE TO WORK.....03 BUSINESS TRAVEL/IN CHARGE/ EDUCATION/TRAINING.....04 UNPAID VOCATION.....05 IT IS NOT WORKING SEASON.....06 WORKPLACE IS CLOSED/INACTIVE.....07  OTHER _____ .96 (SPECIFY)  DON'T KNOW .....98	
706G	What is your husband's occupation?  <i>RECORD TYPE OF WORK, PLACE OF WORK AND POSITION AT WORK OPENLY.</i>	  	
706H	<i>GOING TO BE RECODED BY SUPERVISOR/FIELD EDITOR</i>		
706I	<i>RECORD POSITION AT WORK.</i>	EMPLOYER (10+ EMPLOYEES) .....01 EMPLOYER (1-9 EMPLOYEES) .....02 WAGED, WORKER (REGULAR) .....03 SALARIED, GOVERNMENT OFFICAL (REGULAR) .....04 DAILY WAGED (SEASONAL/TEMPORAL) .....05 FOR HIS/HER OWN (REGULAR) .....06 FOR HIS/HER OWN (IRREGULAR) .....07 UNPAID FAMILY WORKER .....08  OTHER _____ 96 (SPECIFY)  DON'T KNOW .....98	
706J	<i>RECORD TYPE OF WORK.</i>	GOVERNMENT.....01 VOLUNTEER ORGANIZATIN ..... 02 PRIVATE ..... 03  OTHER _____ 96 (SPECIFY)  DON'T KNOW ..... 98	
706K	<i>RECORD PLACE OF WORK.</i>	FIELD/GARDEN.....01 HOUSE (OWN).....02 HOUSE (SOMEONE ELSE) .....03 REGULAR WORK PLACE .....04 MOBILE .....05 UNFIXED WORKPLACE .....06 MARKETPLACE .....07  OTHER _____ 96 (SPECIFY)  DON'T KNOW ..... 98	
706L	Does he pay social security when doing this job? (IF YES) According to which schedule?	NO .....00 SSK .....01 EMEKLİ SANDIĞI .....02 BAĞ-KUR .....03 PRIVATE .....04  OTHER _____ 96 (SPECIFY)  DON'T KNOW ..... 98	

<b>706M</b>	<i>SKIP TO 706R.</i>		
<b>706N</b>	What is the reason of your husband for not working? (What is your husband's occupation? Why doesn't he work?)	WILL START NEW JOB.....01 STUDENT .....02 RETIRED .....04 INCOME RECIPIENT .....05 FAMILY WORKER .....06 HANDICAPPED/SICK.....07 LOOKS AFTER ELDERLY .....08 LOOKS AFTER CHILD .....09 WILL BE CONSCRIPTED/IN MILITARY SERVICE..... 11 LOOKS FOR JOB/UNEMPLOYED..... 12 JUST GRADUATED..... 14 JUST MIGRATED..... 16 NO NEED TO WORK..... 17  OTHER _____ 96 (SPECIFY) DON'T KNOW ..... 98	
<b>706O</b>	Is your husband looking for a job nowadays?	YES .....1 NO .....2 DON'T KNOW .....8	→ 706R
<b>706P</b>	When was your husband's last attempt to find job?	NEVER..... 0 IN LAST MONTH..... 1 BEFORE 2-3 MONTHS.....2 BEFORE 4-6 MONTHS.....3 MORE THAN 7 MONTHS.....4 DON'T KNOW.....8	
<b>706R</b>	Is/was your (last) husband covered by a health insurance? Does/did he have a health insurance?  (IF YES) According to which schedule?	NO .....0 SSK .....1 EMEKLİ SANDIĞI .....2 BAĞ-KUR .....3 PRIVATE .....4 YEŞİL KART .....5  OTHER _____ 7 (SPECIFY) DON'T KNOW ..... 8	
<b>708A</b>	What is/was your (last) husband's mother tongue?  <i>RECORD ONLY ONE RESPONSE.</i>	TURKISH.....01 KURDISH.....02 ARABIC.....03 GREEK, ARMANIAN, HEBREW (LADINO).....04 CIRCASSIAN, GEORGIAN, LAZ LANGUAGE.....05 RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN.....06 ENGLISH, GERMAN, FRENCH.....07  OTHER _____ 96 (SPECIFY) DON'T KNOW ..... 98	
<b>708B</b>	In addition to his mother tongue, which language(s) can/could your (last) husband speak?  <i>RECORD ALL MENTIONED.</i>	TURKISH.....A KURDISH.....B ARABIC.....C GREEK, ARMANIAN, HEBREW (LADINO).....D CIRCASSIAN, GEORGIAN, LAZ LANGUAGE.....E RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN.....F ENGLISH, GERMAN, FRENCH.....G  OTHER _____ U (SPECIFY) KNOWS NO OTHER LANGUAGE ..... Y	

<p><b>708C</b></p>	<p>What is/was your (last) husband's mother's and father's mother tongues?</p> <p><i>USE CODES IN 708A.</i></p>	<p>HUSBAND'S MOTHER ..... <input type="text"/> <input type="text"/></p> <p>HUSBAND'S FATHER..... <input type="text"/> <input type="text"/></p>	
<p><b>708D</b></p>	<p>Which language do/did you usually use when talking with your (last) husband?</p> <p><i>RECORD ALL MENTIONED.</i></p>	<p>TURKISH.....A  KURDISH.....B  ARABIC.....C  GREEK, ARMANIAN, HEBREW (LADINO).....D  CIRCASSIAN, GEORGIAN, LAZ LANGUAGE.....E  RUSSIAN, BULGARIAN, RUMANIAN, SERBIAN.....F  ENGLISH, GERMAN, FRENCH.....G</p> <p>OTHER _____ U  (SPECIFY)</p>	

## SECTION 7B. WOMAN'S WORK AND STATUS

<b>709</b>	<p>Now I would like to ask you questions about working.</p> <p>Aside from your own housework, did you work in a job whether paid or unpaid in last one week?</p>	<p>YES .....1 → 712</p> <p>NO .....2</p>	
<b>710</b>	<p>As you know some women sell small things, sell goods at the market place, work on the family farm or business, look after children, work as housemaids etc. Are you doing any of these at the present or any other work of similar nature?</p>	<p>YES .....1 → 712</p> <p>NO .....2</p>	
<b>710A</b>	<p>You told that you did not work last week. Do you have a job that you usually work?</p>	<p>YES .....1 → 711</p> <p>NO .....2</p>	
<b>710B</b>	<p>Why did not you work last week?</p>	<p>HOLIDAY/ON VOCATION .....01</p> <p>PREGNANCY/BIRTH VOCATION.....02</p> <p>SICK/UNABLE TO WORK.....03</p> <p>BUSINESS TRAVEL/IN CHARGE/ EDUCATION/TRAINING.....04</p> <p>UNPAID VOCATION.....05</p> <p>IT IS NOT WORKING SEASON.....06</p> <p>WORKPLACE IS CLOSED/INACTIVE.....07</p> <p>OTHER _____ .96 (SPECIFY)</p>	
<b>711</b>	<p>Have you worked in any job in the last 12 months?</p>	<p>YES .....1 → 740</p> <p>NO .....2</p>	
<b>712</b>	<p>What type of work are/were you doing? What kind of job are/were you in?</p>	<p>_____</p> <p style="text-align: right;"></p> <p>_____</p>	
<b>713</b>	<p><i>GOING TO BE RECODED BY SUPERVISOR/FIELD EDITOR</i></p>	<p style="text-align: right;"></p>	
<b>713A</b>	<p><i>RECORD POSITION AT WORK.</i></p>	<p>EMPLOYER (10+ EMPLOYEES) .....01</p> <p>EMPLOYER (1-9 EMPLOYEES) .....02</p> <p>WAGED, WORKER (REGULAR) .....03</p> <p>SALARIED, GOVERNMENT OFFICAL (REGULAR) .....04</p> <p>DAILY WAGED (SEASONAL/TEMPORAL) .....05</p> <p>FOR HIS/HER OWN (REGULAR) .....06</p> <p>FOR HIS/HER OWN (IRREGULAR) .....07</p> <p>UNPAID FAMILY WORKER.....08</p> <p>PAID HOUSEHOLD WORKER .....09</p> <p>OTHER _____ 96 (SPECIFY)</p>	
<b>714</b>	<p><i>RECORD THE TYPE OF WORK.</i></p>	<p>GOVERNMENT.....01</p> <p>VOLUNTEER ORGANIZATION .....02</p> <p>PRIVATE .....03</p> <p>OTHER _____ 96 (SPECIFY)</p>	

714A	RECORD THE PLACE OF WORK.	FIELD/GARDEN.....01 HOUSE (OWN).....02 HOUSE (SOMEONE ELSE) .....03 REGULAR WORKPLACE .....04 MOBILE .....05 UNFIXED WORKPLACE .....06 MARKETPLACE .....07  OTHER _____ 96 (SPECIFY)	
715	Do/did you pay social security when doing this job?  (IF YES) According to which schedule?	NO .....00 SSK .....01 EMEKLİ SANDIĞI .....02 BAĞ-KUR .....03 PRIVATE .....04  OTHER _____ 96 (SPECIFY)	
716	In this job, do/did you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR.....1 SEASONALLY/PART OF THE YEAR.....2 ONCE IN A WHILE.....3	
720	Do/did you earn cash for your work? PROBE: Do/did you make money for your work?	YES .....1 NO .....2	→ 724
721	(In the times that you work) Generally what amount of the family expenses is met by your earnings?  The whole, more than the half, the half, less than the half, or does your earning have no contribution to the family expenses?	THE WHOLE.....1 MORE THAN THE HALF.....2 THE HALF.....3 LESS THAN THE HALF.....4 NO CONTRIBUTION.....5 DONT' KNOW .....8	
722	CHECK 250: CURRENTLY MARRIED: <input type="checkbox"/> ↓ Who mainly decides how the money you earn will be used: you, your husband, you and your husband jointly, or someone else?  CURRENTLY NOT MARRIED: <input type="checkbox"/> ↓ Who mainly decides how the money you earn will be used: you, someone else, or you and someone else jointly?	HERSELF DECIDES.....1 HUSBAND DECIDES.....2 JOINTLY WITH HUSBAND.....3 SOMEONE ELSE DECIDES.....4 JOINTLY WITH SOMEONE ELSE.....5	



<b>724</b>	<p><i>CHECK 217 AND 218:</i></p> <p>HAS A CHILD LIVING WITH HER WHOSE AGE IS 5 OR LESS <input type="checkbox"/></p> <p>DOES NOT HAVE A CHILD LIVING WITH HER WHOSE AGE IS 5 OR LESS <input type="checkbox"/></p>	740
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<b>725</b>	<p>Who usually takes care of ..... (NAME OF THE YOUNGEST CHILD AT HOME) while you are working?</p>	<p>WOMAN ..... 01</p> <p>HUSBAND ..... 02</p> <p>FEMALE CHILD ..... 03</p> <p>WOMAN'S MOTHER ..... 05</p> <p>HUSBAND'S MOTHER ..... 06</p> <p>MALE CHILD ..... 07</p> <p>OTHER RELATIVES ..... 08</p> <p>SERVANTS/HIRED HELP ..... 09</p> <p>INSTITUTIONAL CHILDCARE ..... 10</p> <p>HAS NOT WORKED SINCE LAST BIRTH ..... 95</p> <p>OTHER _____ 96</p> <p style="text-align: center;">(SPECIFY)</p>
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<b>740</b>	<p><i>CHECK 709, 710 AND 710A:</i></p> <p>CURRENTLY NOT WORKING <input type="checkbox"/></p> <p>CURRENTLY WORKING <input type="checkbox"/></p>	742
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<b>741</b>	<p>You told that currently you are not working. What is the main reason that you are not working?</p>	<p>WILL START NEW JOB ..... 01</p> <p>STUDENT ..... 02</p> <p>HOUSEWIFE ..... 03</p> <p>RETIRED ..... 04</p> <p>INCOME RECIPIENT ..... 05</p> <p>FAMILY WORKER ..... 06</p> <p>HANDICAPPED/SICK ..... 07</p> <p>LOOKS AFTER ELDERLY ..... 08</p> <p>LOOKS AFTER CHILD ..... 09</p> <p>WILL MARRY ..... 10</p> <p>LOOKS FOR JOB/UNEMPLOYED ..... 12</p> <p>YOUNG TO WORK ..... 13</p> <p>JUST GRADUATED ..... 14</p> <p>HUSBAND/FAMILY DOESN'T ALLOW ..... 15</p> <p>JUST MIGRATED ..... 16</p> <p>NO NEED TO WORK ..... 17</p> <p>OTHER _____ 96</p> <p style="text-align: center;">(SPECIFY)</p>
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<b>741A</b>	<p>Are you looking for a job nowadays?</p>	<p>YES ..... 1</p> <p>NO ..... 2</p>	741C
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<b>741B</b>	<p>When was your last attempt to find job?</p>	<p>NEVER ..... 0</p> <p>IN LAST MONTH ..... 1</p> <p>BEFORE 2-3 MONTHS ..... 2</p> <p>BEFORE 4-6 MONTHS ..... 3</p> <p>MORE THAN 7 MONTHS ..... 4</p>
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<b>741C</b>	<b>CHECK 711:</b> WORKED DURING LAST 12 MONTHS <input type="checkbox"/>	DID NOT WORKED DURING LAST 12 MONTHS <input type="checkbox"/>	→ 746
<b>742</b>	How long have/had you been working in your current/last job?  <i>IF IT IS LESS THAN A YEAR RECORD AS MONTHS.</i>	MONTHS .....1 <input type="text"/> <input type="text"/> YEARS .....2 <input type="text"/> <input type="text"/>	
<b>746</b>	Have you ever worked before your (first) marriage?	YES .....1 NO .....2	→ 757
<b>747</b>	What was the last job you worked before your (first) marriage? What type of work were you doing?	CURRENT JOB .....000  <input type="text"/> <input type="text"/> <input type="text"/>	→ 751
<b>748</b>	<i>GOING TO BE RECORDED BY SUPERVISOR/FIELD EDITOR</i>	<input type="text"/> <input type="text"/>	
<b>748A</b>	<i>RECORD THE POSITION AT WORK.</i>	EMPLOYER (10+ EMPLOYEES) .....01 EMPLOYER (1-9 EMPLOYEES) .....02 WAGED, WORKER (REGULAR) .....03 SALARIED, GOVERNMENT OFFICAL (REGULAR) .....04 DAILY WAGED (SEASONAL/TEMPORAL) .....05 FOR HER OWN (REGULAR) .....06 FOR HER OWN (IRREGULAR) .....07 UNPAID FAMILY WORKER.....08  OTHER _____ 96 (SPECIFY)	
<b>749</b>	<i>RECORD THE TYPE OF WORK.</i>	GOVERNMENT.....01 VOLUNTEER ORGANIZATION .....02 PRIVATE .....03  OTHER _____ 96 (SPECIFY)	
<b>749A</b>	<i>RECORD THE PLACE OF WORK.</i>	FIELD/GARDEN.....01 HOUSE (OWN).....02 HOUSE (SOMEONE ELSE) .....03 REGULAR WORKPLACE .....04 MOBILE .....05 UNFIXED WORKPLACE .....06 MARKETPLACE .....07  OTHER _____ 96 (SPECIFY)	

750	Do/did you pay social security when doing this job? <i>(IF YES)</i> According to which schedule?	NO.....00 SSK .....01 EMEKLİ SANDIĞI .....02 BAĞ-KUR .....03 PRIVATE .....04  OTHER _____ 96 (BELİRTİN)	
751	Were you working just before your (first) marriage?	YES .....1 NO .....2	→ 757
752	After your (first) marriage, did you continue to work in the same job, or start to work in another job, or did you stop working?	YES, THE SAME JOB.....1 YES, DIFFERENT JOB.....2 STOPPED WORKING.....3	→ 757
753	What was the main reason that you stop working?	GOT PREGNANT/CHILD CARE.....01 HOUSEWORK.....02 SICK/HANDICAPPED.....03 COULDN'T FIND JOB.....04 MOVED/MIGRATED.....05 HUSBAND/ELDERS DIDN'T WANT .....06 NO NEED FOR WORKING.....07 DIDN'T WANT TO WORK.....08 WORKED UNPAID.....09 DISCHARGED.....10 ELDERLY/SICK CARE IN FAMILY.....11 WORKPLACE CLOSED .....12  OTHER _____ 96 (SPECIFY)	
757	What is the main source of income providing your and your family's subsistence?	HUSBAND'S EARNINGS.....01 HER AND HER HUSBAND'S JOINTLY.....02 HER EARNINGS.....03 HUSBAND'S FAMILY'S INCOME.....04 HER FAMILY'S INCOME.....05 ALIMONY/SUPPORT FOR CHILD.....06 HER PENSION.....07 HUSBAND'S PENSION.....08  OTHER _____ 96 (SPECIFY)	
758	Are you covered by any health insurance? <i>(IF YES)</i> According to which schedule?	NO .....0 SSK .....1 EMEKLİ SANDIĞI .....2 BAĞ-KUR .....3 PRIVATE .....4 YEŞİL KART .....5  OTHER _____ 7 (SPECIFY)	



767	<p>Now I will read you a few sentences. I would like to get your opinion on these sentences.</p> <p>Tell me if you agree or disagree with each sentence?</p> <p>The important decisions in the family should be made by the men of the family.</p> <p>Men are usually wiser than women.</p> <p>If a woman disagrees with her husband, she should not argue with him, keep quite.</p> <p>It is always better for the male child to have education than the female child.</p>	<table> <thead> <tr> <th>AGREE</th> <th>DISAGREE</th> <th>DK/HAS NO IDEA</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>	AGREE	DISAGREE	DK/HAS NO IDEA	1	2	8	1	2	8	1	2	8	1	2	8		
AGREE	DISAGREE	DK/HAS NO IDEA																	
1	2	8																	
1	2	8																	
1	2	8																	
1	2	8																	
768	Have you ever gone to the cinema?	YES ..... 1 NO ..... 2	→ 770																
769	When did you last go to a cinema?	IN 1 WEEK .....1 IN 1 MONTH .....2 IN THIS YEAR .....3 IN LAST 5 YEARS .....4 BEFORE 5 YEARS .....5																	
770	Have you ever gone to a theatre?	YES .....1 NO .....2	→ 772																
771	When did you last go to the theatre?	IN 1 WEEK .....1 IN 1 MONTH .....2 IN THIS YEAR .....3 IN LAST 5 YEARS .....4 BEFORE 5 YEARS .....5																	
772	<p>Now I want to ask some questions about your daily life.</p> <p>Do you make a branch of sports regularly?</p> <p>Do you participate the activities of any society/club/association regularly?</p> <p>Do you go to holiday other than your homeland/town?</p> <p>Do you go outside for meal with your family?</p> <p>Do you go to picnic?</p> <p>Do you put on make up?</p> <p>Do you wear head scarf when you go outside the street?</p>	<table> <thead> <tr> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>1</td> <td>2</td> </tr> </tbody> </table>	YES	NO	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
YES	NO																		
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## SECTION 8. SEXUALLY TRANSMITTED DISEASES AND AIDS

<b>801</b>	<p><i>CHECK COVER PAGE:</i></p> <p>CLUSTER NO. IS EVEN AND HH. NO. EVEN <input type="checkbox"/></p> <p>CLUSTER NO. IS ODD AND HH. NO. IS ODD <input type="checkbox"/></p>	<p>CLUSTER NO. IS EVEN, HH. NO IS ODD OR CLUSTER NO. IS ODD, HH. NO IS EVEN</p> <p><input type="checkbox"/> → 812S</p>
<b>801A</b>	<p>Now I would like to talk you about sexually transmitted diseases.</p> <p>Have you ever heard of sexually transmitted diseases?</p>	<p>YES .....1</p> <p>NO .....2 → 801L</p>
<b>801B</b>	<p>Which diseases have you heard?</p> <p><i>RECORD ALL MENTIONED.</i></p>	<p>SYPHILIS .....A</p> <p>GONORE ..... B</p> <p>AIDS .....C</p> <p>WART/SORE IN GENITAL ORGANS .....D</p> <p>FUNGUS .....E</p> <p>OTHER _____ U (SPECIFY)</p> <p>OTHER _____ V (SPECIFY)</p> <p>DOESN'T KNOW THE NAMES .....X</p>
<b>801K</b>	<p><i>CHECK 801B:</i></p> <p>NOT MENTIONED AIDS <input type="checkbox"/></p> <p>MENTIONED AIDS <input type="checkbox"/></p>	<p>→ 802A</p>
<b>801L</b>	<p>Have you ever heard of an illness called AIDS?</p>	<p>YES ..... 1</p> <p>NO .....2 → 812S</p>
<b>802A</b>	<p>From which sources of information have you learned most about AIDS?</p> <p>Any other sources?</p> <p><i>RECORD ALL MENTIONED.</i></p>	<p>RADIO ..... A</p> <p>TV .....B</p> <p>NEWSPAPERS/MAGAZINES .....C</p> <p>PAMPHLETS/POSTERS .....D</p> <p>HEALTH WORKERS .....E</p> <p>MOSQUES .....F</p> <p>SCHOOLS/TEACHERS .....G</p> <p>FRIENDS/RELATIVES .....I</p> <p>HUSBAND .....J</p> <p>WORKPLACE .....K</p> <p>OTHER _____ U (SPECIFY)</p>
<b>802B</b>	<p>Through what ways a person is transmitted AIDS?</p> <p>Any other ways?</p> <p><i>RECORD ALL MENTIONED.</i></p>	<p>SEXUAL RELATION .....A</p> <p>SEXUAL RELATION WITH MORE THAN ONE PARTNER .....B</p> <p>SEXUAL RELATION WITH A PROSTITUTE .....C</p> <p>NOT USING CONDOM .....D</p> <p>HOMOSEXUAL RELATION .....E</p> <p>BLOOD TRANSFUSION .....F</p> <p>INJECTION .....G</p> <p>KISSING .....H</p> <p>OTHER _____ U (SPECIFY)</p> <p>OTHER _____ V (SPECIFY)</p> <p>DON'T KNOW .....X</p>



812S	RECORD THE TIME.	HOUR ..... MINUTES .....	<table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table>				
813	PRESENCE OF OTHERS DURING THE INTERVIEW. CIRCLE ALL APPROPRIATE ALTERNATIVES.	NO ONE .....A CHILDREN UNDER 10 .....B MOTHER IN LAW .....D HER MOTHER .....E OTHER MEN .....F OTHER WOMEN .....G					
814	WAS THE INTERVIEW INTERRUPTED? IF YES, FOR HOW MANY MINUTES APPROXIMATELY?	NO .....000 MINUTES .....1	<table border="1"> <tr> <td></td> <td></td> </tr> </table>				
815	IN YOUR OPINION, WHAT IS THE RELIABILITY OF THE RESPONSES?	POOR ..... 1 FAIR ..... 2 GOOD ..... 3 VERY GOOD ..... 4					
816	WHAT LANGUAGE WAS USED DURING THE INTERVIEW?	TURKISH ..... 1 KURDISH ..... 2 ARABIC ..... 3 OTHER ..... 7 (SPECIFY)	→ 921				
817	WAS AN INTERPRETER USED DURING THE INTERVIEW?	YES ..... 1 NO ..... 2					



## SECTION 9. HEIGHT AND WEIGHT

<b>921</b>	<ul style="list-style-type: none"> <li>• RECORD THE NAME OF THE WOMAN AND IF ANY, THE NAME(S) OF THE CHILDREN THAT WAS BORN AFTER JANUARY 1998 AND STILL ALIVE IN 922 BY BEGINNING FROM THE YOUNGEST CHILD. RECORD THE LINE NO. OF CHILDREN IN 923. IF THERE IS MORE THAN 2 LIVING CHILDREN THAT WAS BORN AFTER JANUARY 1998, USE ADDITIONAL QUESTIONNAIRE.</li> <li>• MEASURE THE WEIGHT AND HEIGHT OF WOMAN'S LIVING CHILDREN THAT WAS BORN AFTER JANUARY 1998 AND RECORD IN THE CONCERNED QUESTION..</li> </ul>			
	<b>1</b> WOMAN	<b>2</b> YOUNGEST LIVING CHILD	<b>3</b> NEXT-TO-YOUNGEST LIVING CHILD	
<b>922</b>	NAME CHECK 212 FOR CHILDREN.	(NAME) _____	(NAME) _____	(NAME) _____
<b>923</b>	LINE NO. IN 212.		LINE NO ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	LINE NO ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
<b>924A</b>	DATE OF BIRTH CHECK 105 FOR WOMAN, CHECK 215 FOR CHILDREN AND RECORD .	MONTH ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> YEAR <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	MONTH ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> YEAR <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	MONTH ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> YEAR <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
<b>924B</b>	ASK IF WOMAN AND CHILDREN HAVE IDENTITY CERTIFICATES. IF YES, THEN SAY YOU'D LIKE TO SEE IT	YES, SEEN .....1 YES, NOT SEEN .....2 926 ← <input style="width: 10px; height: 10px;" type="text"/> NO .....3 DON'T KNOW.....8	YES, SEEN .....1 YES, NOT SEEN .....2 926 ← <input style="width: 10px; height: 10px;" type="text"/> NO .....3 DON'T KNOW.....8	YES, SEEN .....1 YES, NOT SEEN .....2 926 ← <input style="width: 10px; height: 10px;" type="text"/> NO .....3 DON'T KNOW.....8
<b>924C</b>	RECORD THE PROVINCE AND DISTRICT INFORMATION THAT REGISTER BELONGS TO IN IDENTITY CERTIFICATE.	PROVINCE ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> DISTRICT _____	PROVINCE ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> DISTRICT _____	PROVINCE ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> DISTRICT _____
<b>924D</b>	RECORD THE DATE OF BIRTH IN THE IDENTITY CERIFICATE.	MONTH ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> YEAR <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	MONTH ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> YEAR <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	MONTH ..... <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> YEAR <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
<b>924E</b>	CHECK 105 FOR WOMAN AND 215 FOR CHILDREN AND COMPARE IT WITH DATE OF BIRTH IN 924C.	SAME .....1 926 ← <input style="width: 10px; height: 10px;" type="text"/> DIFFERENT .....2	SAME .....1 926 ← <input style="width: 10px; height: 10px;" type="text"/> DIFFERENT .....2	SAME .....1 926 ← <input style="width: 10px; height: 10px;" type="text"/> DIFFERENT .....2
<b>924F</b>	DETERMINE THE TRUE INFORMATION FOR DATE OF BIRTH AND DO NOT MAKE ANY CORRECTION.	ANSWER IN 105 .....1 ID CERTIFICATE .....2	ANSWER IN 215 .....1 ID CERTIFICATE .....2	ANSWER IN 215 .....1 ID CERTIFICATE .....2

		<b>1</b> WOMAN	<b>2</b> YOUNGEST LIVING CHILD	<b>3</b> NEXT-TO-YOUNGEST LIVING CHILD
926	HEIGHT (cm)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>
927	WAS THE HEIGHT/LENGTH OF CHILD MEASURED BY LYING DOWN OR STANDING UP?		LYING.....1 STANDING.....2	LYING..... 1 STANDING..... 2
928	WEIGHT (Kilogram)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>
929	DATE WEIGHTED AND MEASURED.	DAY ..... <input type="text"/> <input type="text"/> MONTH ..... <input type="text"/> <input type="text"/>	DAY ..... <input type="text"/> <input type="text"/> MONTH ..... <input type="text"/> <input type="text"/>	DAY ..... <input type="text"/> <input type="text"/> MONTH ..... <input type="text"/> <input type="text"/>
930	RESULT	MEASURED.....1 NOT PRESENT.....3 REFUSED .....4  OTHER _____ 7 (SPECIFY)	MEASURED.....1 NOT PRESENT.....3 REFUSED .....4  OTHER _____ 7 (SPECIFY)	MEASURED..... 1 NOT PRESENT..... 3 REFUSED ..... 4  OTHER _____ 7 (SPECIFY)
931	NAME OF MEASURER	<input type="text"/> <input type="text"/> <input type="text"/>		

**INTERVIEWER'S OBSERVATIONS**

To be filled after completing interview

COMMENTS ABOUT WOMAN

COMMENTS ON SPECIFIC QUESTIONS

ANY OTHER COMMENTS

**SUPERVISOR'S OBSERVATIONS**

NAME OF THE SUPERVISOR:  
DATE:

**EDITOR'S OBSERVATIONS**

NAME OF THE EDITOR:  
DATE:



**PROVINCE TRAFFIC CODES**

01 ADANA	21 DİYARBAKIR	41 KOCAELİ	61 TRABZON
02 ADIYAMAN	22 EDİRNE	42 KONYA	62 TUNCELİ
03 AFYON	23 ELAZIĞ	43 KÜTAHYA	63 ŞANLIURFA
04 AĞRI	24 ERZİNCAN	44 MALATYA	64 UŞAK
05 AMASYA	25 ERZURUM	45 MANİSA	65 VAN
06 ANKARA	26 ESKİŞEHİR	46 K.MARAŞ	66 YOZGAT
07 ANTALYA	27 GAZİANTEP	47 MARDİN	67 ZONGULDAK
08 ARTVİN	28 GİRESUN	48 MUĞLA	68 AKSARAY
09 AYDIN	29 GÜMÜŞHANE	49 MUŞ	69 BAYBURT
10 BALIKESİR	30 HAKKARİ	50 NEVŞEHİR	70 KARAMAN
11 BİLECİK	31 HATAY	51 NIĞDE	71 KIRIKKALE
12 BİNGÖL	32 ISPARTA	52 ORDU	72 BATMAN
13 BİTLİS	33 İÇEL	53 RİZE	73 ŞIRNAK
14 BOLU	34 İSTANBUL	54 SAKARYA	74 BARTIN
15 BURDUR	35 İZMİR	55 SAMSUN	75 ARDAHAN
16 BURSA	36 KARS	56 SİİRT	76 IĞDIR
17 ÇANAKKALE	37 KASTAMONU	57 SİNOP	77 YALOVA
18 ÇANKIRI	38 KAYSERİ	58 SİVAS	78 KARABÜK
19 ÇORUM	39 KIRKLARELİ	59 TEKİRDAĞ	79 KİLİS
20 DENİZLİ	40 KIRŞEHİR	60 TOKAT	80 OSMANİYE
90 ABROAD			81 DÜZCE

CONVERSION OF YEARS OF BIRTH FROM RUMI  
CALENDAR TO GREGORIAN CALENDAR YEARS:

RUMI YEARS + 584 = GREGORIAN YEAR